

LOCATION MAP

N.T.S.

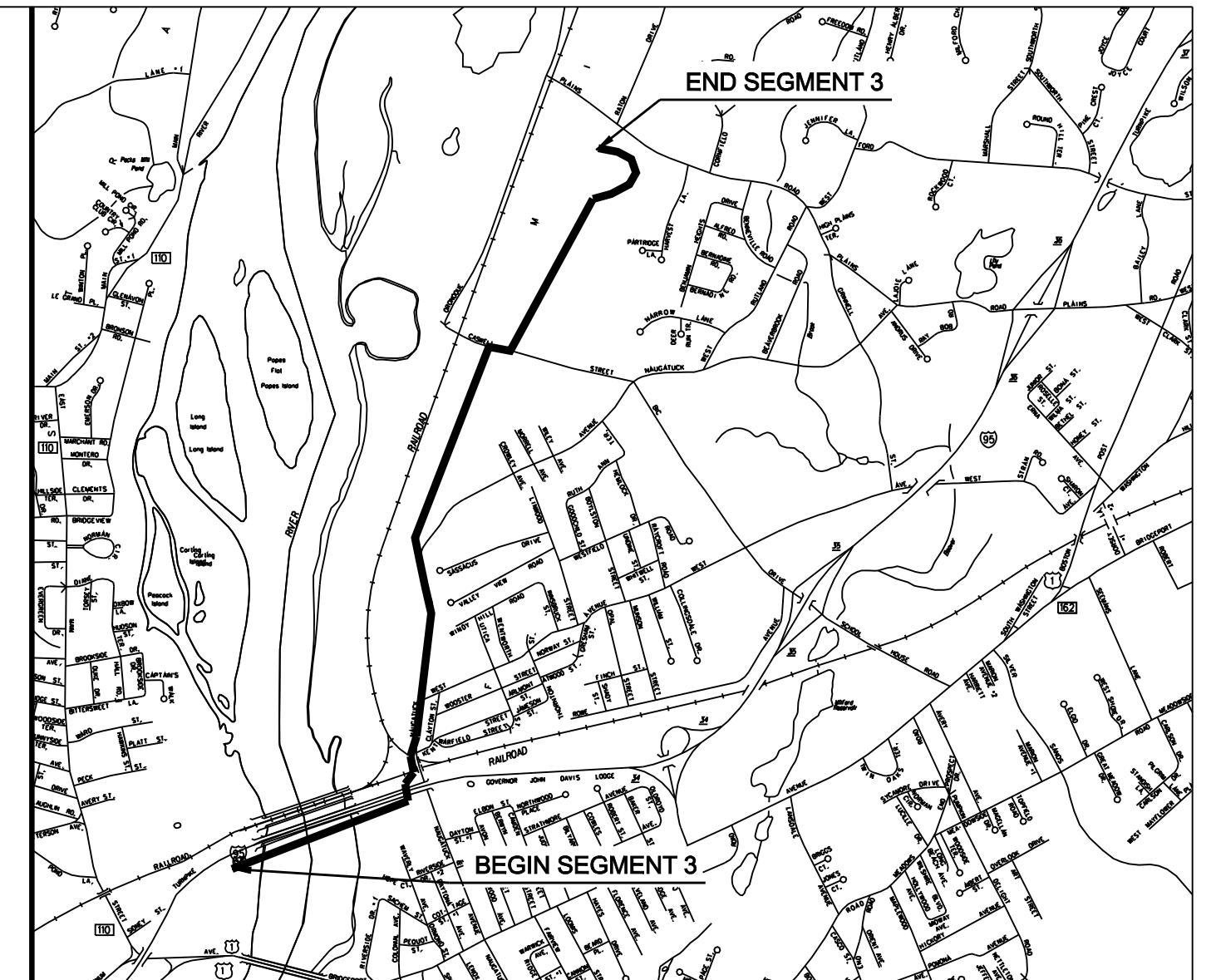


PLANS FOR THE CONSTRUCTION
OF THE
MIDDLETOWN-NORWALK
345-kV TRANSMISSION LINE PROJECT

SEGMENT 3

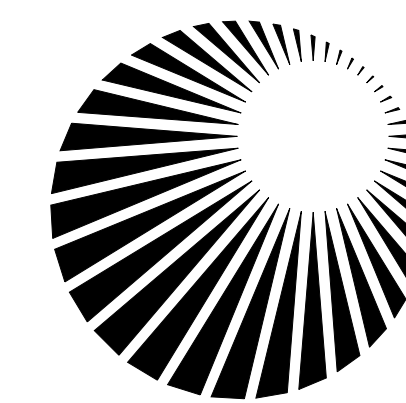
TOWN OF STRATFORD / CITY OF MILFORD, CONNECTICUT

CONNECTICUT SITING COUNCIL
DOCKET NO. 272



VICINITY MAP

N.T.S.



Connecticut
Light & Power
The Northeast Utilities System

DRAWING INDEX


DRAWING INDEX:

DWG NO	TITLE/DESCRIPTION
01223-00000 PG 001	CONSTRUCTION SET
01223-00001 PG 001	HOUSATONIC RIVER TO EAST DEVON SS PAGE INDEX
01223-00001 PG 002	HOUSATONIC RIVER TO EAST DEVON SS GENERAL NOTES AND LEGEND
01223-10002 PG 001	CITY OF MILFORD INDEX KEY MAP
01223-10002 PG 002	CITY OF MILFORD ROUTE DATA TABLES
01223-10002 PG 003	CITY OF MILFORD ROUTE DATA TABLES
01223-10001 PG 003	CITY OF MILFORD P & P Sta 1010+00 TO 1017+25
01223-10001 PG 004	CITY OF MILFORD P & P Sta 1017+25 TO 1023+50
01223-10001 PG 005	CITY OF MILFORD P & P Sta 1021+50 TO 1030+00
01223-10001 PG 006	CITY OF MILFORD P & P Sta 1028+50 TO 1036+50
01223-10001 PG 007	CITY OF MILFORD P & P Sta 1035+50 TO 1044+00
01223-10001 PG 008	CITY OF MILFORD P & P Sta 1043+00 TO 1051+00
01223-10001 PG 009	CITY OF MILFORD P & P Sta 1049+00 TO 1058+00
01223-10001 PG 010	CITY OF MILFORD P & P Sta 1056+00 TO 1065+00
01223-10001 PG 011	CITY OF MILFORD P & P Sta 1063+50 TO 1072+00
01223-10001 PG 012	CITY OF MILFORD P & P Sta 1071+00 TO 1079+00
01223-10001 PG 013	CITY OF MILFORD P & P Sta 1078+50 TO 1086+50
01223-10001 PG 014	CITY OF MILFORD P & P Sta 1085+50 TO 1094+50
01223-10001 PG 015	CITY OF MILFORD P & P Sta 1092+50 TO 1100+50
01223-10001 PG 016	CITY OF MILFORD P & P Sta 1100+00 TO 1108+50
01223-10001 PG 017	CITY OF MILFORD P & P Sta 1107+50 TO 1115+50
01223-10001 PG 018	CITY OF MILFORD P & P Sta 1113+00 TO EAST DEVON SS
01223-45003 PG 001	VAULT, GROUNDING AND HANDHOLE DETAILS
01223-45003 PG 002	VAULT AND GROUNDING DETAILS
01223-45003 PG 003	UTILITY BRIDGE SPLICE VAULT DETAILS
01223-45003 PG 004	HORIZONTAL DIRECTIONAL DRILL SPLICE VAULT DETAILS
01223-45003 PG 005	CROSSING SPLICE VAULT DETAILS
01223-45003 PG 006	CONDUIT TRANSITIONS
01223-46003 PG 001	TYPICAL DUCT BANK DETAILS
01223-46003 PG 002	UTILITY BRIDGE DUCT BANK DETAILS AND UTILITY CROSSING DETAIL
01223-46003 PG 003	UTILITY BRIDGE DUCT BANK DETAILS
01223-46003 PG 004	JACK AND BORE AND HORIZONTAL DIRECTIONAL DRILL DUCT BANK DETAILS
01223-46003 PG 005	CABLE AND TEMPERATURE MONITORING DETAILS
01223-46003 PG 006	HORIZONTAL DIRECTIONAL DRILL AND JACK AND BORE SECTIONS
01223-15003 PG 001	EROSION CONTROL DETAILS
01223-15003 PG 002	EROSION CONTROL DETAILS
LL-01	LANDSCAPE PLAN
SB-01	LOT LINE ADJUSTMENT PLAN
UTL-01	UTILITY PLAN

COPYRIGHT © 2007 BURNS & MCDONNELL ENGINEERING COMPANY, INC.

DOCKET No. 272

ISSUED FOR
CONSTRUCTION

												
				date 10/11/05				detailed L. ROWSE				
				designed C. COURTRIGHT				checked S. NEWLAND				
1	5/10/07	ISSUED CSC REVISED	CTC									
no.	date	revisions	by	chk	MF	NO.	DATE	REVISIONS	BY	CHK	APP	APP
NORTHEAST UTILITIES SERVICE CO. FOR THE CONNECTICUT LIGHT & POWER COMPANY TITLE MIDDLETOWN-NORWALK 345KV TRANSMISSION PROJECT HOUSATONIC RIVER TO EAST DEVON SS PAGE INDEX												
				BY SEN-BMCD		CHKD		APP		APP		
				DATE 10/11/05		DATE		DATE		DATE		
				SCALE AS NOTED				D		DWG. NO. 01223-00001 PG 001		

ABBREVIATIONS

<u>BUILDINGS</u>	
GAR.	GARAGE
<u>GUIDE RAILS</u>	
MBR	METAL BEAM RAIL
CGRM	CABLE GUIDE RAIL METAL POSTS
CGRW	CABLE GUIDE RAIL WOOD POSTS
TGR	TIMBER GUIDE RAIL
<u>FENCES/WALLS</u>	
CLF	CHAIN LINK FENCE
PICK.FENCE	PICKET FENCE
RAIL FENCE	WOOD RAIL FENCE
STOCK.FENCE	STOCKADE FENCE
WIRE FENCE	WIRE FENCE
RET.WALL	RETAINING WALL
<u>MONUMENTATION</u>	
CHD	CONN.HIGHWAY DEPT.MON.
DH	DRILL HOLE
I.PIN	IRON PIN
I.PIPE	IRON PIPE
MAG.NAIL	MAGNETIC NAIL
MON.	MONUMENT
PK NAIL	*PK* NAIL
SPIKE	SPIKE
<u>SURFACE/WALL/CURB MATERIALS</u>	
BIT.	BITUMINOUS
BOL.	BOLLARD
CONC.	CONCRETE
GRAN.	GRANITE
GRAV.	GRAVEL
B.C.L.C.	BITUMINOUS CONCRETE LIP CURB
<u>UTILITY - WATER</u>	
WG	WATER GATE (OR CURB BOX)
WM	WATER METER
<u>TRAFFIC</u>	
LOOP DET.	LOOP DETECTOR
<u>UTILITY - COMMUNICATIONS AND ELECTRIC</u>	
ELEC.MH	ELECTRIC MANHOLE
TEL.MH	TELEPHONE/COMMUNICATIONS MANHOLE
TRANS.	TRANSFORMER
UI	UNITED ILLUMINATING
SNET	SOUTHERN NEW ENGLAND TELEPHONE
CL&P	CONNECTICUT LIGHT AND POWER

<u>UTILITY - GAS</u>	
GG	GAS GATE
ST.	STEEL
<u>PIPE MATERIALS</u>	
CI	CAST IRON
DI	DUCTILE IRON
H.P.	HIGH PRESSURE
L.P.	LOW PRESSURE
PLA	PLASTIC
PVC	POLYVINYL CHLORIDE
RCP	REINFORCED CONCRETE PIPE
CMP	CORRUGATED METAL PIPE
WRP	WRAPPED PIPE
600*	600 PSI
CWD	CREOSOTE WOOD DUCT
MTD	MULTI TILED DUCTS
STD	SINGLE TILED DUCTS
F	FIBERGLASS
P	PLASTIC
I	IRON
W	WOOD
HWF	
TH	TEST HOLE
<u>STRUCTURES</u>	
C CB	CURBED CATCH BASIN
C-L CB	CURBLESS CATCH BASIN
MH	MANHOLE
SAN.	SANITARY
STM.	STORM
TF	TOP OF FRAME
INV.	INVERT
BTM	BOTTOM
N/A	NOT AVAILABLE
<u>MISC.</u>	
(ABAN.)	ABANDONED
(MAP)	COMPILED FROM EXISTING MAPPING
UG	UNDERGROUND
F.O.	FIBER OPTIC

LEGEND

<u>Edge Of Road</u>	<u>Easement Line</u>
Concrete Pavement	Edge of Water
Dirt Road	Stone Wall
B.C.L.C.	Transmission Tower
Curb (Type As Labeled)	Riprap
Guide Rail	Hedge Row
Concrete Median Barrier	Tree Line
Railroad Tracks	Shrub
Fence	All Trees
Storm	Hand Hole
Sanitary	Pedestrian Signal
Gas Main	Span Pole
Water Main	Mast Arm
Underground Electric	Traffic Controller
Telephone Duct Bank	Traffic Signal
Underground Tele. Conduit	Sign
Overhead Wires	2-Post Sign
Retaining Wall	Double-Faced Sign
Highway Line	Billboard
Street Line	Utility Pole
Property Line	Utility Pole With Light
Lot Line Of Common Ownership	General Purpose Lamp
Town Line	Light Standard
DUCT BANK	Guy Wire
Water /RR Crossing	Guy Pole
Demolition	Water Meter
Approx. Limits of Thermally Approved Unbound Aggregate Backfill	Hydrant
	Type *C-L* Catch Basin
	Type *C* Catch Basin
	Manhole
	Benchmark
	Control Point
	Monuments
	Pin, Pipe, Drillhole
	Marsh
	Wetlands Boundary
	Fiber Optic Handhole
	Splice Vault
	Test Hole
	Temperature Monitor Station

GENERAL NOTES

1. THE UTILITIES AND NATURAL FEATURES SHOWN HEREON ARE BASED ON FIELD SURVEYS, AERIAL PHOTOGRAPHY AND RECORD DOCUMENTS. OTHER FACILITIES MAY EXIST NOT DISCOVERED THROUGH THE RECORD CHECK. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION, BOTH HORIZONTAL AND VERTICAL, OF ALL UTILITIES THROUGH THE APPROPRIATE UTILITY COMPANIES. CALL BEFORE YOU DIG.
2. ALL VERTICAL RADII ARE 400' UNLESS OTHERWISE NOTED.
3. DUCT BANK SHALL MAINTAIN MINIMUM COVER DEPTH OF 2'-6" UNLESS OTHERWISE SHOWN ON DRAWINGS. MAINTAIN 2'-0" VERTICAL CLEARANCE OVER OR UNDER EXISTING UTILITIES UNLESS OTHERWISE SHOWN ON DRAWINGS.
4. ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE RETURNED TO THE ORIGINAL CONDITIONS AS DETERMINED BY NORTHEAST UTILITIES.
5. COORDINATES AND STATIONING INDICATED ARE AT CENTERLINE OF DUCT BANK.
6. SEE INDEX KEY MAPS FOR THE DESIGNATION BETWEEN MUNICIPAL ROADS AND STATE ROADS.
7. TREES AND SHRUBS SHALL BE REMOVED AND REPLACED WITH SIMILAR TYPES AND SIZES TYPICAL OF GENERAL CONSUMER NURSERY STOCK, PROVIDED THAT NO REPLACEMENT TREE SHALL EXCEED TWELVE (12) FEET IN HEIGHT, NOR SHALL ANY REPLACEMENT SHRUB EXCEED A THREE (3) GALLON POT AND PROVIDED THAT NOTHING SHALL BE PLANTED WITHIN FIFTEEN (15) FEET OF AN INSTALLED VAULT OR WITHIN TEN (10) FEET OF AN INSTALLED CABLE DUCT BANK.
8. COORDINATES ARE BASED ON THE CONNECTICUT STATE PLANE COORDINATE SYSTEM. (NAD 83)
9. VERTICAL DATUM IS BASED ON NAVD 88.
10. SILT FENCE SHALL BE USED ALONG THE DOWN SLOPE SIDE OF THE CONSTRUCTION AREA WHERE THERE IS THE POTENTIAL FOR STORM WATER RUNOFF. THIS INCLUDES ANY PERVIOUS AREAS ALONG THE ROUTE. INLET PROTECTION SHALL BE USED IN ROADWAYS WHERE STORM DRAINS ARE PRESENT AND POTENTIAL FOR STORM WATER RUNOFF EXISTS.
11. TEMPORARY AND PERMANENT EASEMENTS SHALL BE ACQUIRED FOR INSTALLATION OF THE DUCT BANK AND VAULTS ALONG PRIVATE PROPERTY. A TYPICAL VAULT LOCATION INSTALLED ALONG PRIVATE PROPERTY REQUIRES A PERMANENT EASEMENT OF APPROXIMATELY 10,000 SF AND A TEMPORARY EASEMENT OF APPROXIMATELY 6,500 SF.
12. VAULT AND DUCT BANK LOCATIONS ARE SUBJECT TO ADJUSTMENT DUE TO UNFORESEEN CONDITIONS.
13. NORTHING AND EASTING DESIGNATIONS FOR SPLICE VAULT LOCATIONS ARE REFERENCED TO CENTER OF SPLICE VAULT.



ONE CALL SYSTEMS
1-800-922-4455
CALL BEFORE YOU DIG.....IT'S THE LAW!
48 HOUR NOTICE REQUIRED

DOCKET No. 272

ISSUED FOR
CONSTRUCTION



date 10/11/05 detailed L. ROWSE
designed C. COURTRIGHT checked S. NEWLAND

1	5/10/07	ISSUED CSC REVISED	CTC
no.	date	revisions	by

MF	NO.	DATE	REVISIONS	BY	CHK	APP	APP
----	-----	------	-----------	----	-----	-----	-----

NORTHEAST UTILITIES SERVICE CO.			
FOR THE CONNECTICUT LIGHT & POWER COMPANY			
TITLE MIDDLETOWN-NORWALK 345KV TRANSMISSION PROJECT			
HOUSATONIC RIVER TO EAST DEVON SS GENERAL NOTES AND LEGEND			
BY SEN-BMCD	CHKD	APP	APP
DATE 10/11/05	DATE	DATE	DATE
SCALE AS NOTED	D	DWG. NO. 01223-00001	PG 002

CURVE DATA TABLE								
CURVE NO.	RADIUS	CURVE LENGTH	TANGENT LENGTH	DEFLECTION ANGLE	POINT OF INTERSECTION	POINT OF CURVATURE	POINT OF TANGENCY	SHEET REFERENCE
PI-M-00	200'	64.91'	32.74'	18°35'39.82"	N 635,157.2423 E 900,325.0586	N 635,136.5721 E 900,299.6671	N 635,168.7371 E 900,355.7157	10001 PG 003
PI-M-01	200'	73.82'	37.34'	21°08'55.88"	N 635,675.4818 E 901,707.2274	N 635,662.3737 E 901,672.2674	N 635,700.3203 E 901,735.1033	10001 PG 003
PI-M-02	200'	82.33'	41.75'	23°35'04.85"	N 635,728.0978 E 901,766.2776	N 635,700.3203 E 901,735.1033	N 635,741.0820 E 901,805.9617	10001 PG 003
PI-M-03	52'	79.98'	50.33'	88°07'47.64"	N 635,908.4232 E 902,317.4329	N 635,892.7728 E 902,269.5982	N 635,956.7432 E 902,303.3519	10001 PG 004
PI-M-04	400'	76.65'	38.44'	10°58'47.65"	N 636,001.0301 E 902,290.4462	N 635,964.1206 E 902,301.2020	N 636,039.3126 E 902,286.9171	10001 PG 004
PI-M-05	200'	121.17'	62.51'	34°42'49.35"	N 636,294.1257 E 902,263.4274	N 636,231.8788 E 902,269.1656	N 636,348.5609 E 902,294.1588	10001 PG 005
PI-M-06	200'	71.27'	36.02'	20°25'00.67"	N 636,382.6343 E 902,313.3949	N 646,351.2711 E 902,295.6888	N 636,418.2040 E 902,319.0477	10001 PG 005
PI-M-07	100'	38.52'	19.50'	22°04'19.74"	N 636,548.1850 E 902,339.7044	N 636,528.9234 E 902,336.6433	N 636,567.1853 E 902,335.3031	10001 PG 005
PI-M-08	200'	99.91'	51.02'	28°37'21.25"	N 636,651.7386 E 902,315.7169	N 636,602.0334 E 902,327.2308	N 636,700.8851 E 902,329.4207	10001 PG 005
PI-M-09	200'	44.11'	22.14'	12°38'11.64"	N 636,722.2162 E 902,335.3686	N 636,700.8851 E 902,329.4207	N 636,744.3317 E 902,336.5059	10001 PG 006
PI-M-10	200'	15.24'	7.62'	4°21'54.89"	N 636,751.9442 E 902,366.8974	N 636,744.3317 E 902,336.5059	N 636,759.5047 E 902,337.8671	10001 PG 006
PI-M-11	200'	15.15'	7.58'	4°20'28.28"	N 636,883.3318 E 902,353.7497	N 636,875.8130 E 902,352.7853	N 636,890.7561 E 902,355.2805	10001 PG 006
PI-M-12	200'	23.99'	12.01'	6°52'22.89"	N 636,902.5188 E 902,357.7058	N 636,890.7561 E 902,355.2805	N 636,913.9067 E 902,361.5213	10001 PG 006
PI-M-13	200'	37.09'	18.60'	10°37'27.04"	N 636,931.5393 E 902,367.4290	N 636,913.9067 E 902,361.5213	N 636,949.9589 E 902,369.9847	10001 PG 006
PI-M-14	200'	34.15'	17.12'	9°46'59.52"	N 637,059.0304 E 902,385.1179	N 637,042.0763 E 902,382.7656	N 637,076.1376 E 902,384.5552	10001 PG 006
PI-M-15	200'	38.42'	19.27'	11°00'23.06"	N 637,095.3963 E 902,383.9216	N 637,076.1376 E 902,384.5552	N 637,114.4217 E 902,386.9766	10001 PG 006
PI-M-16	500'	19.81'	9.91'	2°16'13.22"	N 637,275.2411 E 902,412.8000	N 637,265.4588 E 902,411.2292	N 637,285.0778 E 902,413.9820	10001 PG 006
PI-M-17	200'	39.31'	19.72'	11°15'42.51"	N 637,482.6067 E 902,437.7177	N 637,463.0284 E 902,435.3651	N 637,501.3485 E 902,443.8485	10001 PG 007
PI-M-18	200'	42.56'	21.36'	12°11'32.42"	N 637,521.6502 E 902,450.4895	N 637,501.3485 E 902,443.8485	N 637,542.8966 E 902,452.6932	10001 PG 007
PI-M-19	1,000'	178.45'	89.46'	10°13'27.63"	N 637,713.5127 E 902,469.5507	N 637,624.4463 E 902,461.1514	N 637,799.6738 E 902,493.6262	10001 PG 007
PI-M-20	350'	240.98'	125.49'	39°26'57.87"	N 638,212.0951 E 902,604.9939	N 638,090.9462 E 902,572.2796	N 638,326.4311 E 902,553.2779	10001 PG 008
PI-M-21	400'	12.48'	6.24'	1°47'17.92"	N 638,412.2013 E 902,514.4826	N 638,406.5132 E 902,517.0554	N 638,417.9669 E 902,512.0885	10001 PG 008
PI-M-22	202'	45.15'	22.67'	12°48'23.20"	N 638,456.3535 E 902,496.1492	N 638,435.4172 E 902,504.8426	N 638,478.6960 E 902,492.3128	10001 PG 008
PI-M-23	200'	44.70'	22.45'	12°48'23.20"	N 638,500.8172 E 902,488.5144	N 638,478.6960 E 902,492.3128	N 638,521.5462 E 902,479.9071	10001 PG 008
PI-M-24	500'	99.32'	49.83'	11°22'54.32"	N 638,721.6334 E 902,396.8248	N 638,675.6165 E 902,415.9324	N 638,762.9745 E 902,369.0117	10001 PG 009
PI-M-25	500'	280.90'	144.26'	32°11'17.58"	N 638,882.6695 E 902,288.4846	N 638,762.9745 E 902,369.0117	N 639,026.8647 E 902,284.0961	10001 PG 009
PI-M-26	500'	65.50'	32.80'	7°30'21.17"	N 639,075.2774 E 902,282.6226	N 639,042.4952 E 902,283.6203	N 639,107.9091 E 902,285.9157	10001 PG 009
PI-M-27	300'	135.77'	69.07'	25°55'50.19"	N 639,523.9008 E 902,327.8965	N 639,455.1809 E 902,320.9615	N 639,582.6698 E 902,364.1834	10001 PG 010
PI-M-27A	200'	26.87'	13.45'	7°41'49.53"	N 639,673.1494 E 902,420.0501	N 639,661.7016 E 902,412.9816	N 639,683.5474 E 902,428.5881	10001 PG 010
PI-M-28	200'	33.67'	16.87'	9°38'43.63"	N 639,740.6455 E 902,475.4729	N 639,727.6043 E 902,464.7644	N 639,755.2966 E 902,483.8449	10001 PG 010
PI-M-29	150'	87.44'	45.00'	33°23'55.22"	N 639,843.1516 E 902,534.0478	N 639,804.0804 E 902,511.7214	N 639,863.4807 E 902,574.1944	10001 PG 010
PI-M-30	150'	57.86'	29.29'	22°06'04.73"	N 639,876.7148 E 902,600.3294	N 639,863.4807 E 902,574.1944	N 639,898.8096 E 902,619.5647	10001 PG 010
PI-M-31	200'	57.10'	28.75'	16°21'30.19"	N 639,959.8023 E 902,672.6638	N 639,938.1211 E 902,653.7886	N 639,985.9219 E 902,684.6686	10001 PG 010
PI-M-31A	200'	56.99'	28.69'	16°19'27.67"	N 640,011.9886 E 902,696.6490	N 639,985.9219 E 902,684.6686	N 640,033.6370 E 902,715.4731	10001 PG 010
PI-M-31B	200'	78.80'	39.92'	22°34'24.88"	N 640,075.8883 E 902,752.2123	N 640,045.7671 E 902,726.0207	N 640,113.7560 E 902,764.8346	10001 PG 011
PI-M-32	2,000'	96.37'	48.19'	2°45'38.48"	N 640,299.2723 E 902,826.6722	N 640,253.5529 E 902,811.4327	N 640,344.2047 E 902,844.0961	10001 PG 011
PI-M-33	400'	79.09'	39.67'	11°19'44.25"	N 640,846.8955 E 903,039.0298	N 640,809.9045 E 903,024.6854	N 640,885.9835 E 903,045.8281	10001 PG 012
PI-M-33A	200'	42.78'	21.47'	12°15'20.20"	N 640,958.2002 E 903,058.3882	N 640,937.0458 E 903,054.7090	N 640,979.6536 E 903,057.4931	10001 PG 012
PI-M-34	1,000'	237.24'	119.18'	13°35'33.58"	N 641,098.7278 E 903,052.5248	N 640,979.6536 E 903,057.4931	N 641,215.6345 E 903,075.6801	10001 PG 012
PI-M-35	200'	44.78'	22.48'	12°49'43.04"	N 641,298.6303 E 903,092.1189	N 641,276.5746 E 903,087.7504	N 641,321.1054 E 903,091.4812	10001 PG 012
PI-M-36	200'	44.78'	22.48'	12°49'43.04"	N 641,343.5806 E 903,090.8435	N 641,321.1054 E 903,091.4812	N 641,365.6363 E 903,095.2120	10001 PG 012
PI-M-37	100'	172.32'	116.53'	98°43'54.79"	N 641,542.1464 E 903,130.1729	N 641,427.8353 E 903,107.5316	N 641,502.4139 E 903,239.7218	10001 PG 013

ISSUED FOR
CONSTRUCTION

CURVE DATA TABLE								
CURVE NO.	RADIUS	CURVE LENGTH	TANGENT LENGTH	DEFLECTION ANGLE	POINT OF INTERSECTION	POINT OF CURVATURE	POINT OF TANGENCY	SHEET REFERENCE
PI-M-38	200'	29.91'	14.98'	8°34'04.64"	N 641,487.8058 E 903,279.9986	N 641,492.9140 E 903,265.9145	N 641,484.8529 E 903,294.6866	10001 PG 013
PI-M-38A	200'	62.32'	31.41'	17°51'10.67"	N 641,395.7808 E 903,737.7383	N 641,401.9725 E 903,706.9406	N 641,380.4455 E 903,765.1547	10001 PG 014
PI-M-39	126'	226.16'	158.21'	103°02'10.81"	N 641,303.2126 E 903,903.2319	N 641,380.4455 E 903,765.1547	N 641,455.1525 E 903,947.3284	10001 PG 014
PI-M-40	200'	74.87'	37.88'	21°26'50.35"	N 642,035.2585 E 904,112.1720	N 641,998.8249 E 904,101.8190	N 642,065.3836 E 904,135.1298	10001 PG 015
PI-M-41	200'	28.96'	14.50'	8°17'42.93"	N 642,076.9190 E 904,143.9208	N 642,065.3836 E 904,135.1298	N 642,089.6020 E 904,150.9555	10001 PG 015
PI-M-42	100'	23.15'	11.62'	13°15'41.25"	N 642,144.9096 E 904,181.6321	N 642,134.7438 E 904,175.9936	N 642,156.0977 E 904,184.7882	10001 PG 015
PI-M-43	200'	46.29'	23.25'	13°15'41.25"	N 642,178.4739 E 904,191.1005	N 642,156.0977 E 904,184.7882	N 642,198.8053 E 904,202.3775	10001 PG 015
PI-M-44	200'	41.62'	20.88'	11°55'20.57"	N 642,444.3913 E 904,338.5929	N 642,426.1286 E 904,328.4634	N 642,464.3528 E 904,344.7311	10001 PG 015
PI-M-45	200'	61.02'	30.75'	17°28'49.83"	N 642,667.7748 E 904,407.2838	N 642,638.3848 E 904,398.2463	N 642,698.5222 E 904,407.0757	10001 PG 016
PI-M-46	200'	20.41'	10.22'	5°50'52.23"	N 642,934.4273 E 904,405.4792	N 642,924.2122 E 904,405.5484	N 642,944.5821 E 904,404.3697	10001 PG 016
PI-M-47	400'	122.20'	61.58'	17°30'14.69"	N 643,257.7330 E 904,370.1538	N 643,196.5169 E 904,376.8425	N 643,314.1028 E 904,345.3627	10001 PG 016
PI-M-48	150'	105.87'	55.25'	40°26'19.11"	N 643,364.6748 E 904,323.1214	N 643,314.1028 E 904,345.3627	N 643,417.5916 E 904,338.9962	10001 PG 017
PI-M-49	100'	13.76'	6.89'	7°53'04.11"	N 643,451.6946 E 904,349.2269	N 643,445.0938 E 904,347.2467	N 643,457.9613 E 904,352.0938	10001 PG 017
PI-M-50	102'	14.04'	7.03'	7°53'04.11"	N 643,464.3533 E 904,355.0181	N 643,457.9613 E 904,352.0938	N 643,471.0861 E 904,357.0379	10001 PG 017
PI-M-51	75'	37.84'	19.33'	28°54'33.67"	N 643,538.1015 E 904,377.1422	N 643,519.5838 E 904,371.5870	N 643,551.6261 E 904,390.9571	10001 PG 017
PI-M-52	225'	451.43'	352.88'	114°57'23.35"	N 643,930.0862 E 904,777.5403	N 643,683.2233 E 904,525.3788	N 644,054.5442 E 904,447.3329	10001 PG 018



date 06/19/06 detailed L. ROWSE
designed C. COURTRIGHT checked S. NEWLAND

no.	date	revisions	by	chk
1	5/10/07	ISSUED CSC REVISED		CTC

MF	NO.	DATE	REVISIONS	BY	CHK	APP	APP

NORTHEAST UTILITIES SERVICE CO.

FOR	THE CONNECTICUT LIGHT & POWER COMPANY			
TITLE	MIDDLETOWN-NORWALK 345KV TRANSMISSION PROJECT			
	CITY OF MILFORD ROUTE DATA TABLES			
BY	SEN-BMCD	CHKD	APP	APP
DATE	06-19-06	DATE	DATE	DATE
SCALE	AS NOTED	DWG. NO.	01223-10002 PG 002	

VAULT CURVE DATA TABLE								
CURVE NO.	RADIUS	CURVE LENGTH	TANGENT LENGTH	DEFLECTION ANGLE	POINT OF INTERSECTION	POINT OF CURVATURE	POINT OF TANGENCY	SHEET REFERENCE
PI-M4901-1	200'	85.86'	43.60'	24° 35' 54.51"	N 635,656.8363 E 901,707.7124	N 635,640.2930 E 901,667.3683	N 635,688.6718 E 901,737.5090	10001 PG 003
PI-M4901-2	150'	75.34'	38.48'	28° 46' 40.41"	N 635,716.7679 E 901,763.8057	N 635,688.6718 E 901,737.5090	N 635,728.7343 E 901,800.3805	10001 PG 003
PI-M4901-3	200'	44.82'	22.50'	12° 50' 18.80"	N 635,752.2751 E 901,872.3319	N 635,745.2781 E 901,850.9457	N 635,763.8494 E 901,891.6287	10001 PG 003
PI-M4901-4	200'	44.82'	22.50'	12° 50' 18.80"	N 635,775.4236 E 901,910.9255	N 635,763.8494 E 901,891.6287	N 635,782.4207 E 901,932.3116	10001 PG 003
PI-M5802-1	200'	12.97'	6.49'	3° 42'58.64"	N 636,897.1103 E 902,356.5906	N 636,890.7555 E 902,355.2804	N 636,903.5366 E 902,357.4862	10001 PG 006
PI-M5802-2	137'	12.97'	6.49'	5° 25'56.50"	N 637,068.2883 E 902,380.2958	N 637,061.8441 E 902,379.5489	N 637,074.6329 E 902,381.6493	10001 PG 006
PI-M5802-3	200'	24.43'	12.23'	6° 59'55.57"	N 637,086.6129 E 902,384.1114	N 637,074.6329 E 902,381.6493	N 637,098.8036 E 902,385.0953	10001 PG 006
PI-M5803-1	200'	44.70'	22.44'	12° 48' 20.75"	N 638,558.8738 E 902,453.5797	N 638,538.1459 E 902,462.1866	N 638,580.9938 E 902,449.7812	10001 PG 008
PI-M5803-2	202'	45.16'	22.67'	12° 48' 33.09"	N 638,603.3411 E 902,445.9437	N 638,580.9938 E 902,449.7812	N 638,624.2814 E 902,437.2472	10001 PG 008
PI-M5804-1	200'	76.73'	38.84'	21° 58'54.30"	N 639,837.8056 E 902,530.9929	N 639,804.0804 E 902,511.7214	N 639,861.8655 E 902,561.4872	10001 PG 010
PI-M5804-2	200'	37.41'	18.76'	10° 43'06.33"	N 639,873.4869 E 902,576.2165	N 639,861.8655 E 902,561.4872	N 639,887.6449 E 902,588.5275	10001 PG 010
PI-M4905-1	200'	28.30'	14.17'	8° 06'23.34"	N 641,290.4766 E 903,090.5039	N 641,276.5746 E 903,087.7504	N 641,303.8515 E 903,095.1903	10001 PG 013
PI-M4905-2	200'	28.30'	14.17'	8° 06'23.34"	N 641,317.2264 E 903,099.8767	N 641,303.8515 E 903,095.1903	N 641,331.1284 E 903,102.6303	10001 PG 013
PI-M4905-3	91'	156.81'	106.04'	98° 43'54.79"	N 641,537.3234 E 903,143.4707	N 641,433.3003 E 903,122.8672	N 641,501.1668 E 903,243.1603	10001 PG 013
PI-M5806-1	200'	45.91'	23.06'	13° 09' 07.43"	N 642,041.3588 E 904,113.9055	N 642,019.1808 E 904,107.6033	N 642,061.5211 E 904,125.0886	10001 PG 015
PI-M5806-2	200'	14.15'	7.08'	4° 03'08.16"	N 642,180.7590 E 904,191.2244	N 642,174.5715 E 904,187.7925	N 642,186.6884 E 904,195.0850	10001 PG 015
PI-M5806-3	200'	14.15'	7.08'	4° 03'08.16"	N 642,192.6179 E 904,198.9456	N 642,186.6884 E 904,195.0850	N 642,198.8053 E 904,202.3775	10001 PG 015
PI-M4907-1	150'	102.46'	53.32'	39° 08' 10.70"	N 643,355.0216 E 904,328.5777	N 643,305.7393 E 904,348.9280	N 643,406.0917 E 904,343.8985	10001 PG 017
PI-M4907-2	102'	14.04'	7.03'	7° 53' 04.16"	N 643,463.2952 E 904,361.0592	N 643,456.5624 E 904,359.0394	N 643,469.6872 E 904,363.9835	10001 PG 017
PI-M4907-3	100'	13.76'	6.89'	7° 53' 04.14"	N 643,475.9540 E 904,366.8505	N 643,469.6872 E 904,363.9835	N 643,482.5547 E 904,368.8306	10001 PG 017
PI-M4907-4	200'	100.91'	51.55'	28° 54' 33.69"	N 643,549.6782 E 904,388.9673	N 643,500.2976 E 904,374.1534	N 643,585.7438 E 904,425.8071	10001 PG 017

VAULT LOCATION TABLE	
VAULT #	CENTER OF VAULT
5801	N 635,756.3020 E 901,855.6968
4901	N 635,737.5042 E 901,823.9693
5802	N 636,966.4941 E 902,367.2310
4902	N 637,016.4605 E 902,378.2019
5803	N 638,511.3642 E 902,474.3899
4903	N 638,551.8357 E 902,466.2472
5804	N 639,948.1531 E 902,642.4668
4904	N 639,919.1383 E 902,635.9475
5805	N 641,409.4963 E 903,104.9092
4905	N 641,407.1647 E 903,116.6806
5806	N 642,085.1020 E 904,139.3114
4906	N 642,113.1884 E 904,162.8942
5807	N 643,492.0157 E 904,364.3607
4907	N 643,431.9462 E 904,350.6107

HANDHOLE LOCATION TABLE	
HANDHOLE #	CENTER OF HANDHOLE
5801	N 635,767.4374 E 901,872.0446
4901	N 635,738.1850 E 901,843.7376
5802	N 636,985.6848 E 902,364.3438
4902	N 637,034.3274 E 902,386.1924
5803	N 638,513.2644 E 902,456.9207
4903	N 638,571.4922 E 902,464.0405
5804	N 639,966.1232 E 902,650.7228
4904	N 639,901.1774 E 902,627.6811
5805	N 641,391.9505 E 903,095.8283
4905	N 641,424.7105 E 903,125.7623
5806	N 642,127.1360 E 904,176.9197
4906	N 642,071.1544 E 904,125.2859
5807	N 643,475.3974 E 904,353.6332
4907	N 643,412.1672 E 904,350.4192

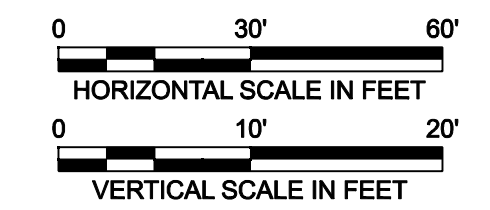
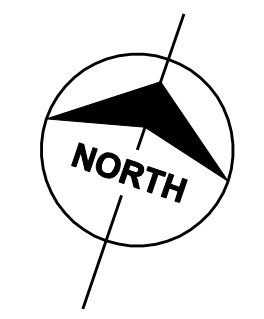
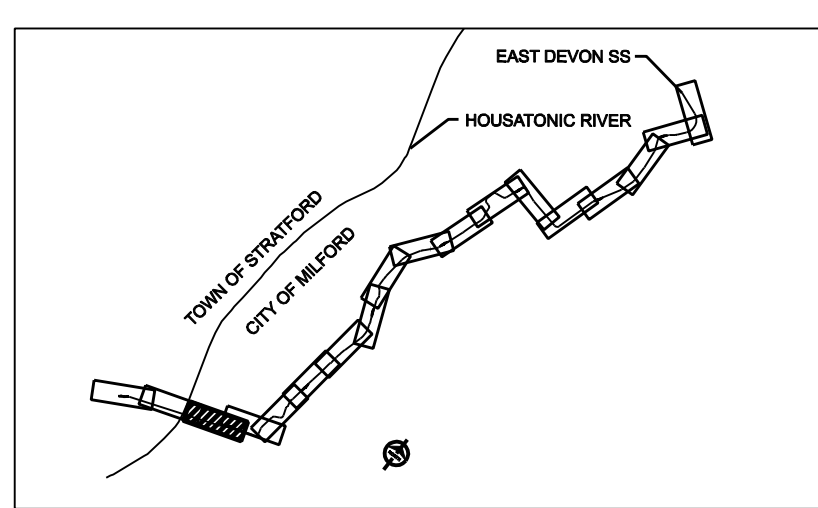
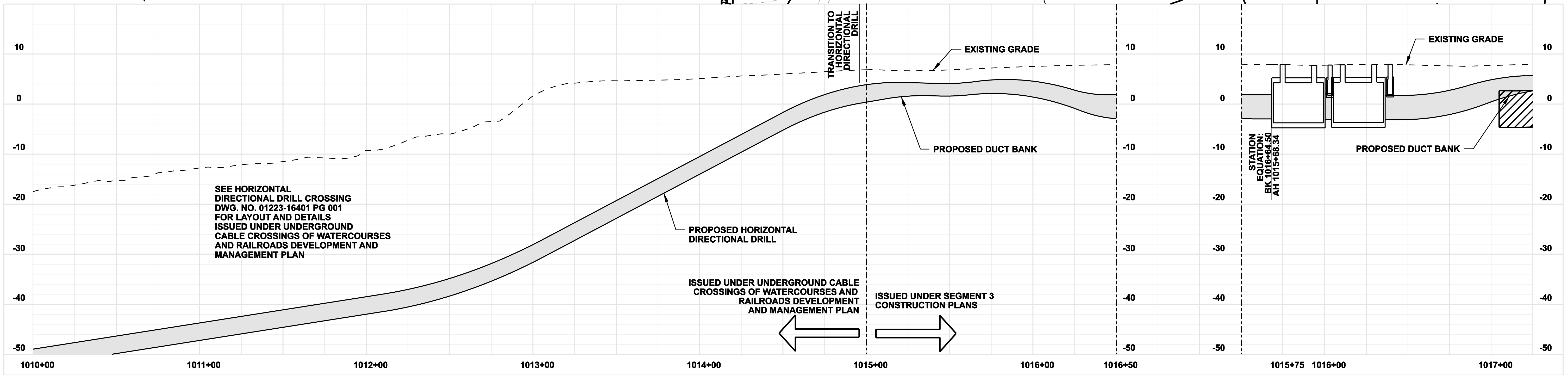
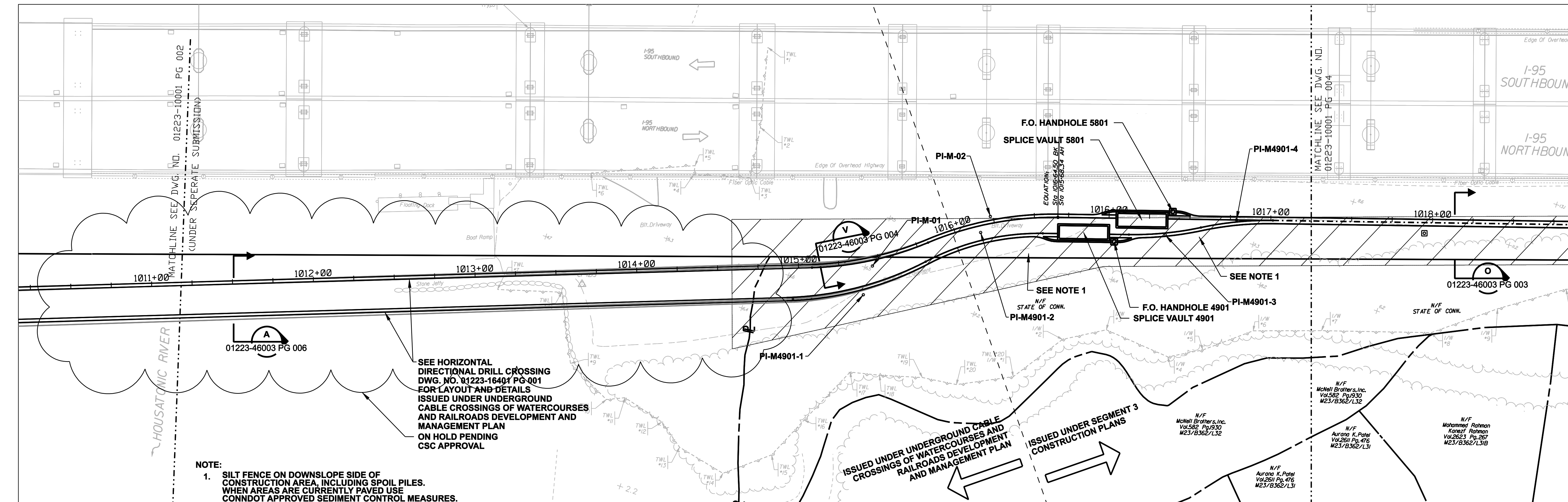
NOTE:
NEW SHEET ADDED DUE TO LACK OF SPACE ON SHEET 01223-10002 PG 002.
REVISIONS WILL BE CARRIED OVER.

ISSUED FOR
CONSTRUCTION



date 06/19/06 detailed L. ROWSE
designed C. COURTRIGHT checked S. NEWLAND

NORTHEAST UTILITIES SERVICE CO.									
FOR THE CONNECTICUT LIGHT & POWER COMPANY									
TITLE MIDDLETOWN-NORWALK 345KV TRANSMISSION PROJECT									
CITY OF MILFORD ROUTE DATA TABLES									
BY SEN-BMCD	CHKD	APP	APP						
DATE 06-19-06	DATE	DATE	DATE						
SCALE AS NOTED	D	DWG. NO.	01223-10002 PG 002						
MF	NO.	DATE	REVISIONS	BY	CHK	APP	APP		



ISSUED FOR CONSTRUCTION

DOCKET No. 272



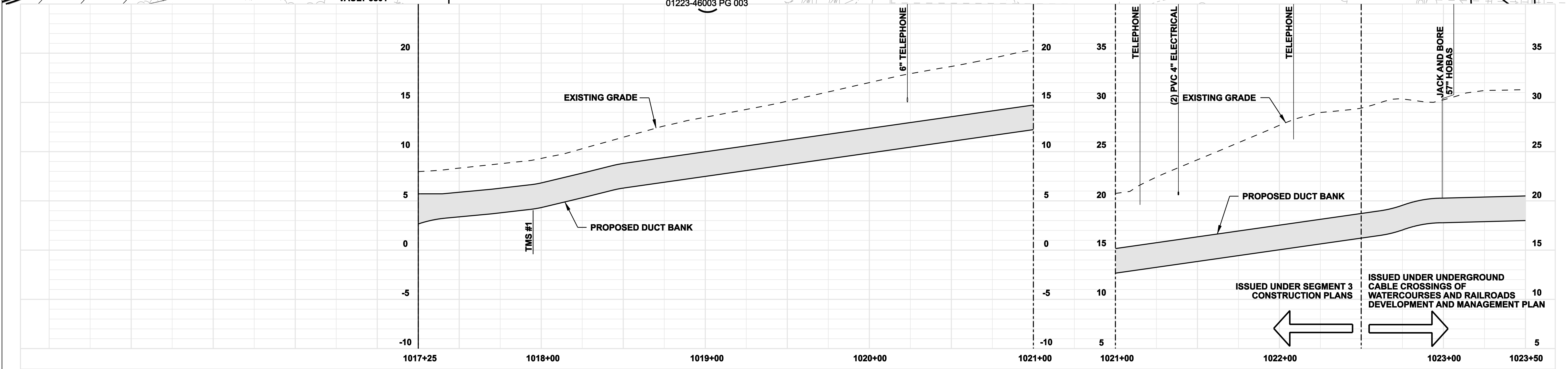
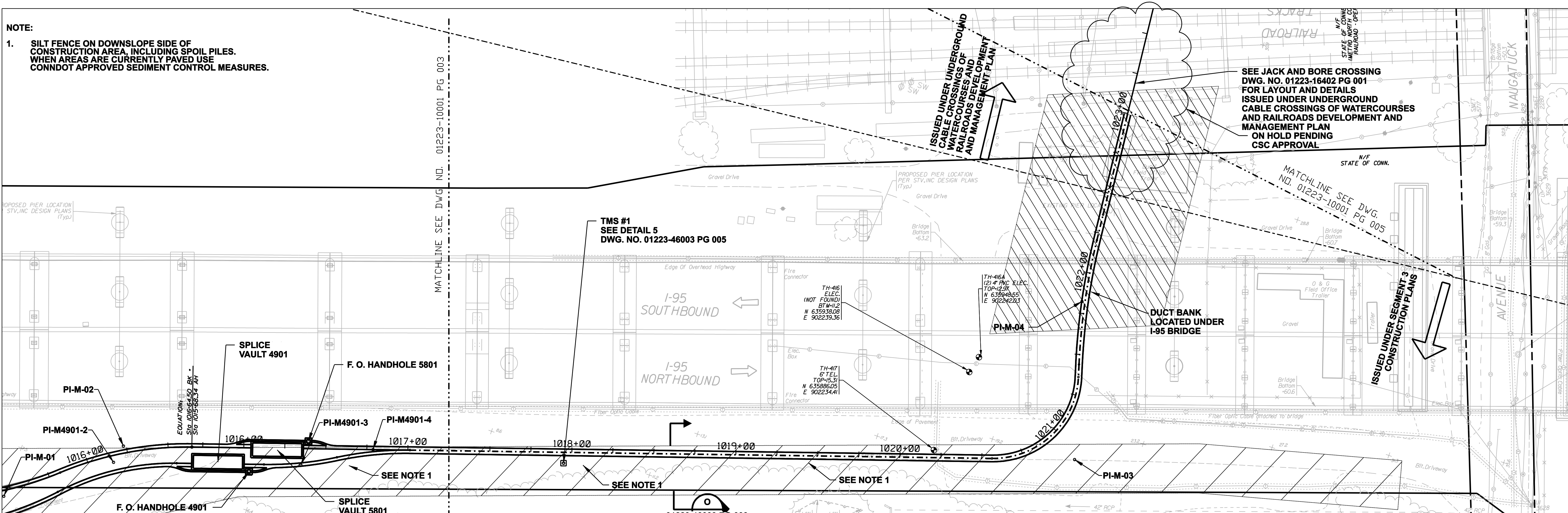
date 10/11/05
designed C. COURTRIGHT
detailed L. ROWSE
checked S. NEWLAND

no.	date	revisions	by	chk
1	5/10/07	ISSUED CSC REVISED		CTC

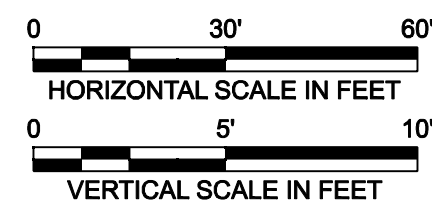
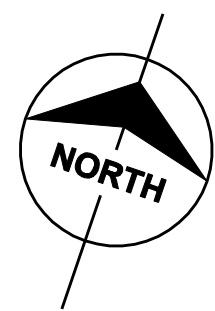
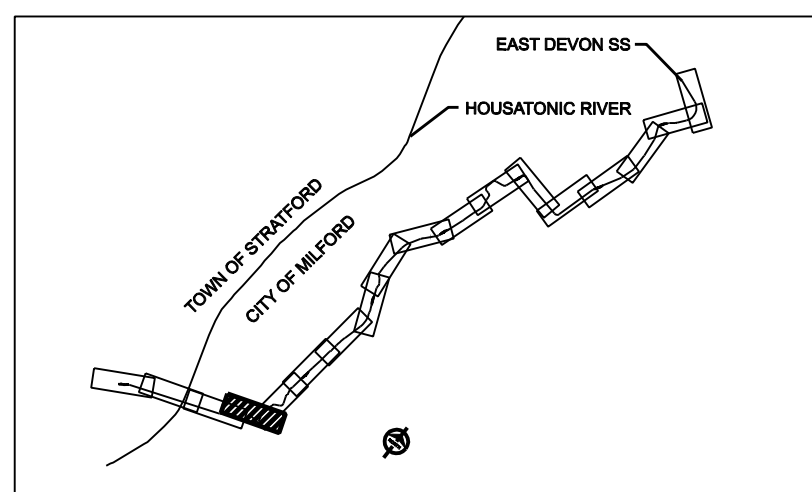
MF NO.	DATE	REVISIONS	BY	CHK	APP	APP

NORTHEAST UTILITIES SERVICE CO.			
FOR THE CONNECTICUT LIGHT & POWER COMPANY			
TITLE MIDDLETOWN-NORWALK 345KV TRANSMISSION PROJECT			
CITY OF MILFORD			
PLAN AND PROFILE Sta. 1010+00 to 1017+25			
BY SEN-BMCD	CHKD	APP	APP
DATE 10-11-05	DATE	DATE	DATE
SCALE AS NOTED	DWG. NO.		
	D		01223-10001 PG 003

NOTE:
 1. SILT FENCE ON DOWNSLOPE SIDE OF CONSTRUCTION AREA, INCLUDING SPOIL PILES. WHEN AREAS ARE CURRENTLY PAVED USE CONNDOT APPROVED SEDIMENT CONTROL MEASURES.



COPYRIGHT © 2007 BURNS & MCDONNELL ENGINEERING COMPANY, INC.



ISSUED FOR CONSTRUCTION

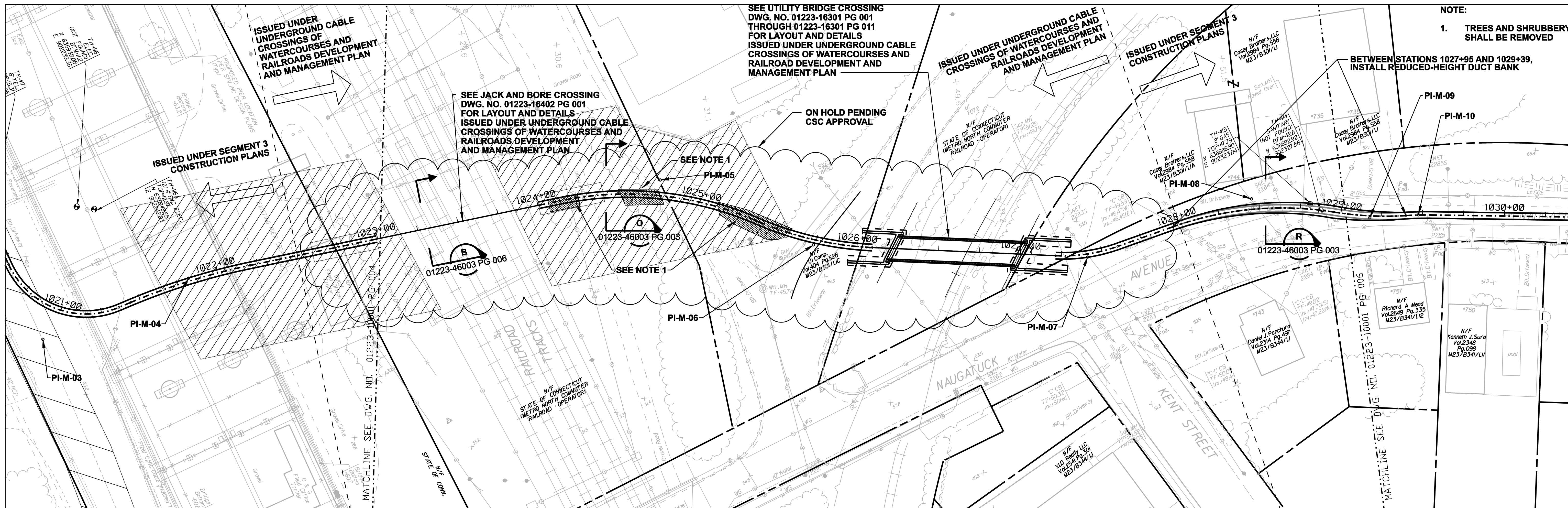
DOCKET No. 272

no.	date	revisions	by	chk
1	5/10/07	ISSUED CSC REVISED		CTC

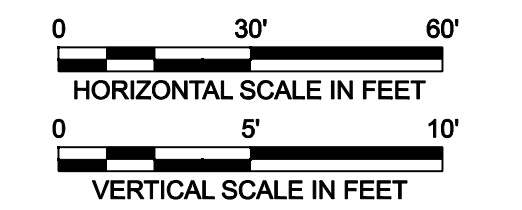
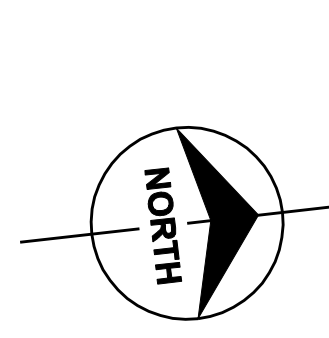
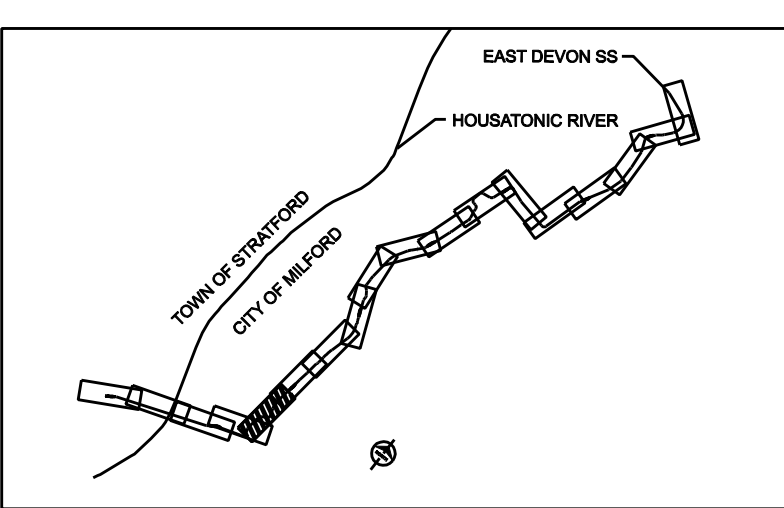
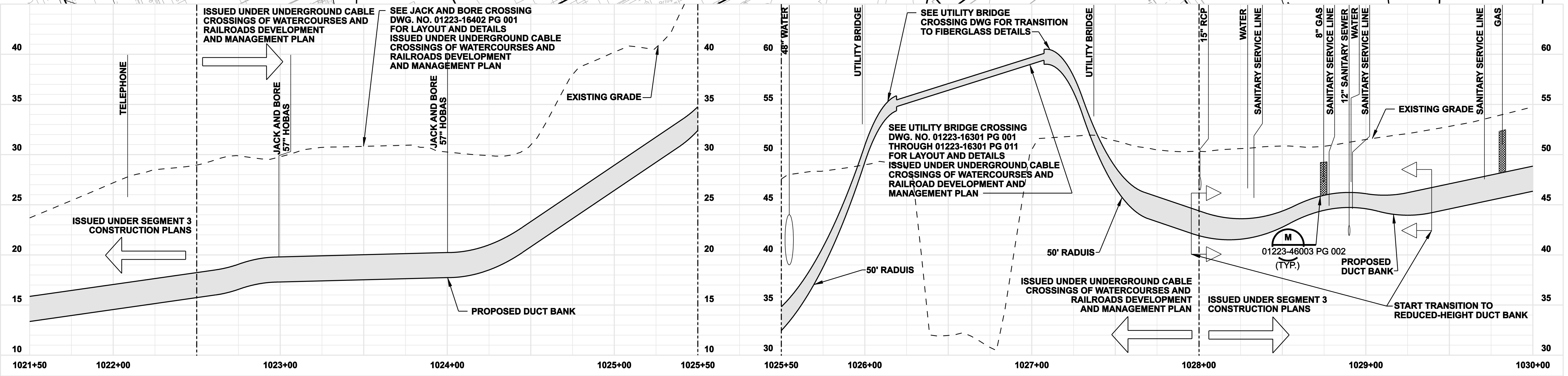
Burns & McDonnell SINCE 1898	
date	10/11/05
designed	C. COURTRIGHT
detailed	L. ROWSE
checked	S. NEWLAND

MF	NO.	DATE	REVISIONS	BY	CHK	APP	APP

NORTHEAST UTILITIES SERVICE CO.			
FOR THE CONNECTICUT LIGHT & POWER COMPANY			
TITLE MIDDLETOWN-NORWALK 345KV TRANSMISSION PROJECT			
CITY OF MILFORD PLAN AND PROFILE Sta. 1017+25 to 1023+50			
BY SEN-BMCD	CHKD	APP	APP
DATE 10-11-05	DATE	DATE	DATE
SCALE AS NOTED	DWG. NO. 01223-10001 PG 004		



NOTE:
1. TREES AND SHRUBBERY SHALL BE REMOVED



ISSUED FOR CONSTRUCTION

DOCKET No. 272



date 10/11/05
designed C. COURTRIGHT
detailed L. ROWSE
checked S. NEWLAND

no.	date	revisions	by	chk
1	5/10/07	ISSUED CSC REVISED		CTC

MF NO.	DATE	REVISIONS	BY	CHK	APP	APP

NORTHEAST UTILITIES SERVICE CO.					
FOR THE CONNECTICUT LIGHT & POWER COMPANY					
TITLE MIDDLETOWN-NORWALK 345KV TRANSMISSION PROJECT					
CITY OF MILFORD PLAN AND PROFILE Sta. 1021+50 to 1030+00					
BY SEN-BMCD	CHKD	APP	APP	DATE	DATE
DATE 10-11-05	DATE	DATE	DATE	DATE	DATE
SCALE AS NOTED	D		DWG. NO.	01223-10001 PG 005	

COPYRIGHT © 2007 BURNS & MCDONNELL ENGINEERING COMPANY, INC.

NOTE:

1. SILT FENCE ON DOWNSLOPE SIDE OF CONSTRUCTION AREA, INCLUDING SPOIL PILES. WHEN AREAS ARE CURRENTLY PAVED USE CONDOT APPROVED SEDIMENT CONTROL MEASURES.

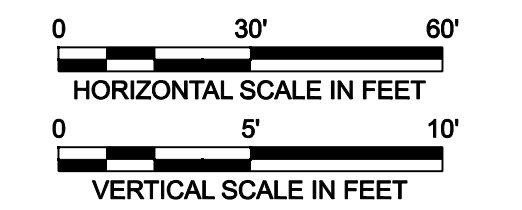
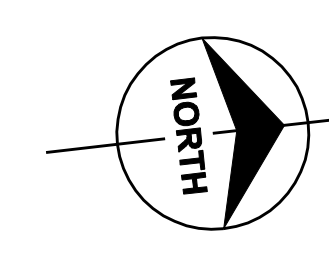
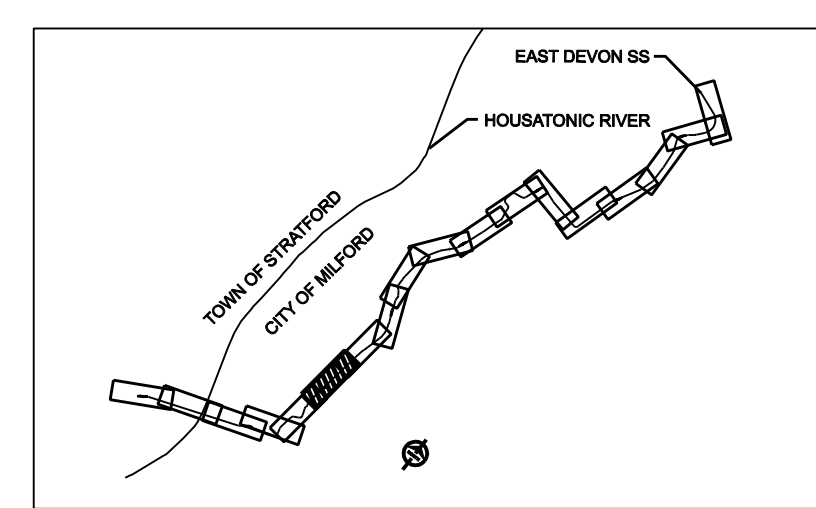
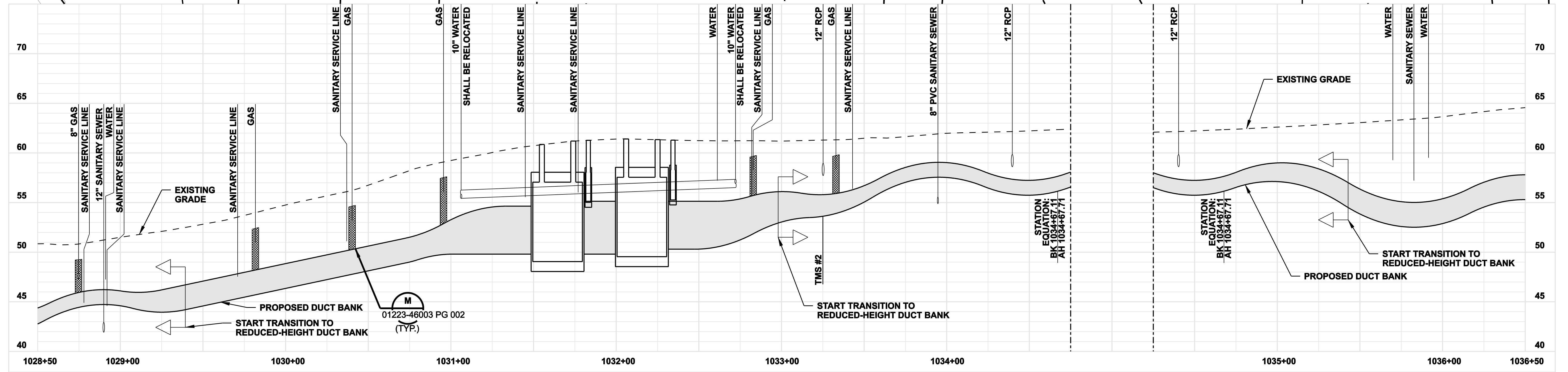
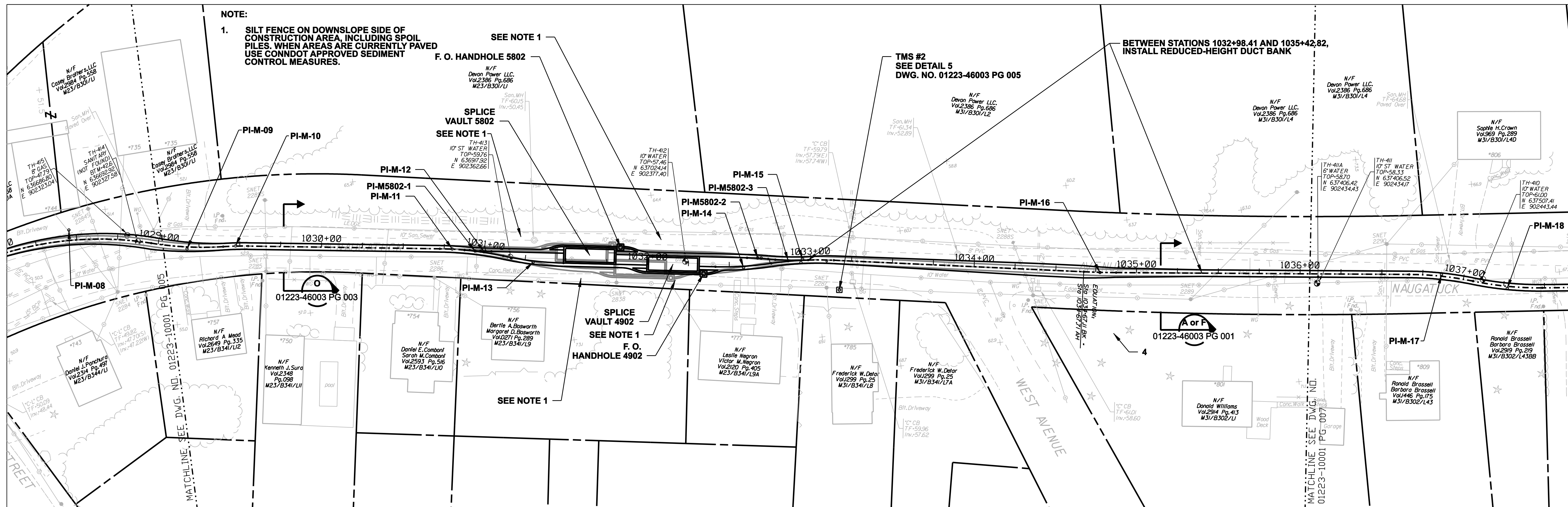
SEE NOTE 1

F. O. HANDHOLE 5802
N/F Devon Power LLC. Vol.2386 Pg.686 M23/B30/L1

SPLICE VAULT 5802
SEE NOTE 1
TH-413 10" ST WATER TOP-5976 N 63691.92 E 902362.66

TMS #2
SEE DETAIL 5
DWG. NO. 01223-46003 PG 005

BETWEEN STATIONS 1032+98.41 AND 1035+42.82, INSTALL REDUCED-HEIGHT DUCT BANK



ISSUED FOR CONSTRUCTION

DOCKET No. 272



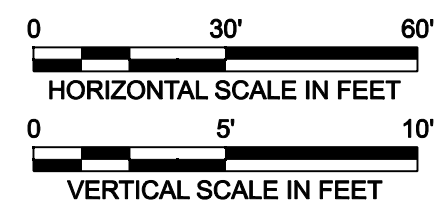
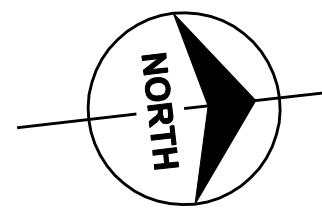
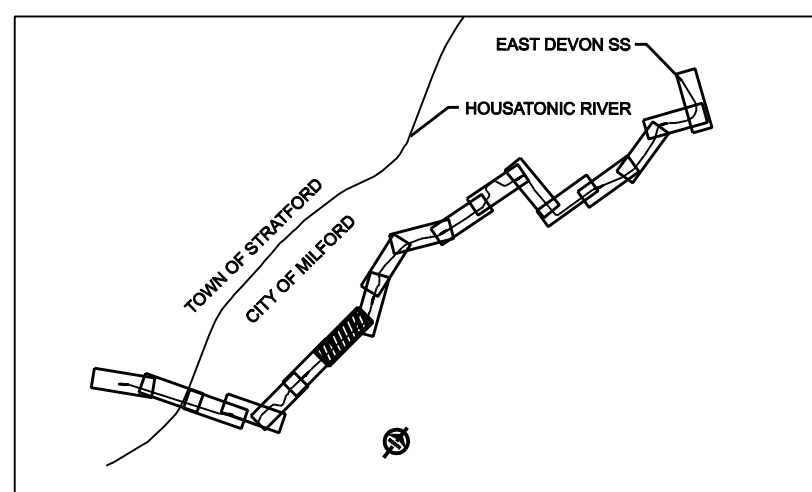
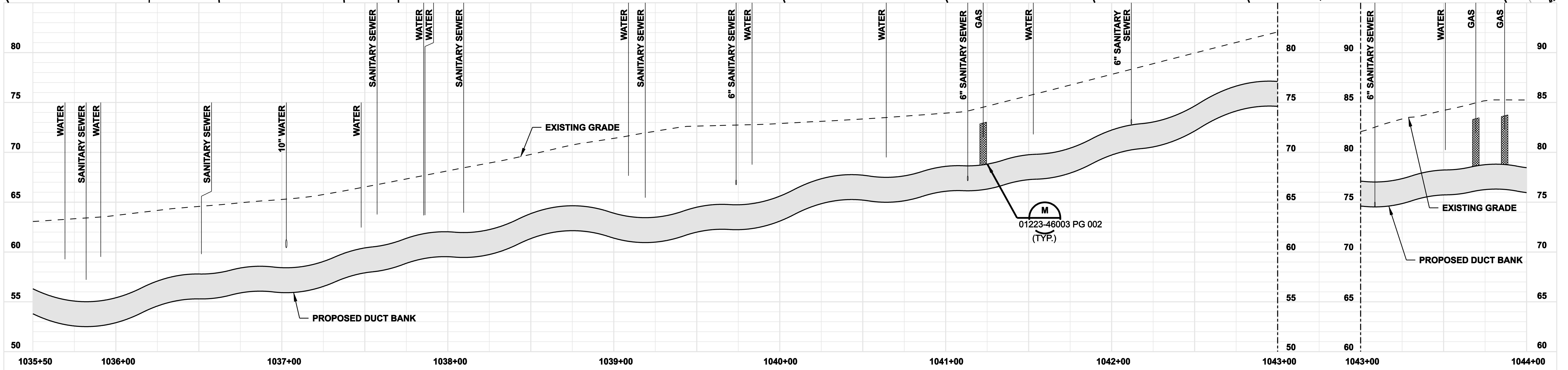
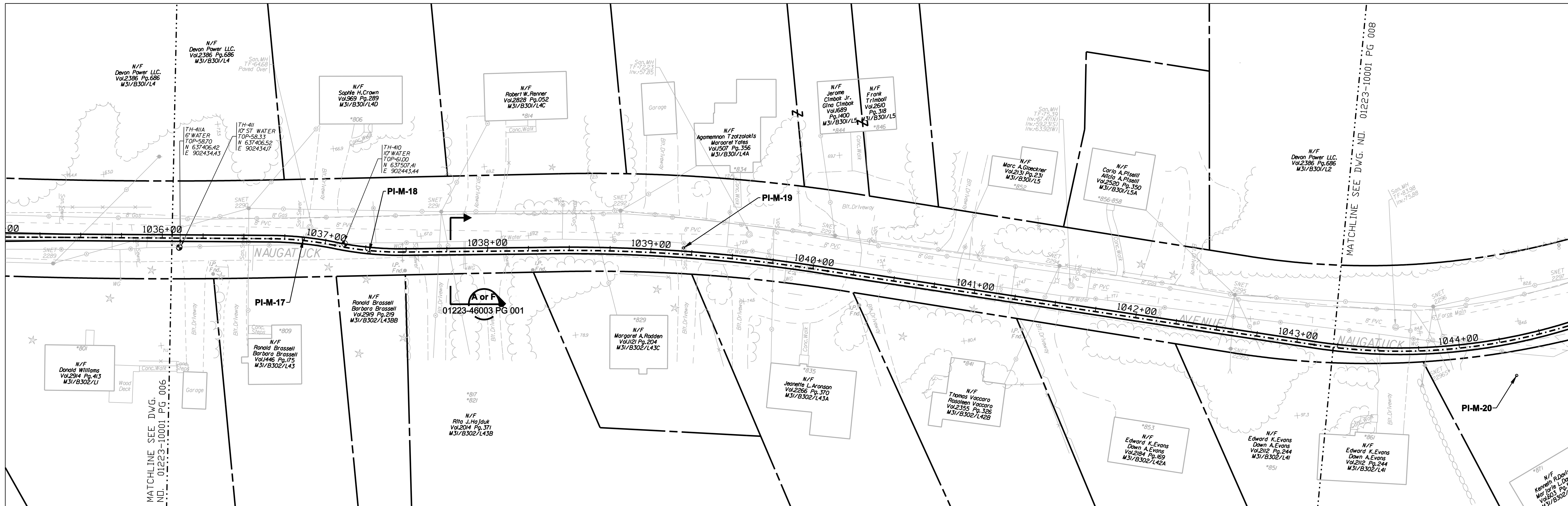
date 10/11/05
designed C. COURTRIGHT
detailed L. ROWSE
checked S. NEWLAND

no.	date	revisions	by	chk
1	5/10/07	ISSUED CSC REVISED	CTC	

MF NO.	DATE	REVISIONS	BY	CHK	APP	APP

NORTHEAST UTILITIES SERVICE CO.					
FOR THE CONNECTICUT LIGHT & POWER COMPANY					
TITLE MIDDLETOWN-NORWALK 345KV TRANSMISSION PROJECT					
CITY OF MILFORD PLAN AND PROFILE Sta. 1028+50 to 1036+50					
BY SEN-BMCD	CHKD	APP	APP		
DATE 10-11-05	DATE	DATE	DATE		
SCALE AS NOTED	DWG. NO. 01223-10001 PG 006				

COPYRIGHT © 2007 BURNS & MCDONNELL ENGINEERING COMPANY, INC.



**ISSUED FOR
CONSTRUCTION**

DOCKET No. 272



date 10/11/05
designed C. COURTRIGHT
detailed L. ROWSE
checked S. NEWLAND

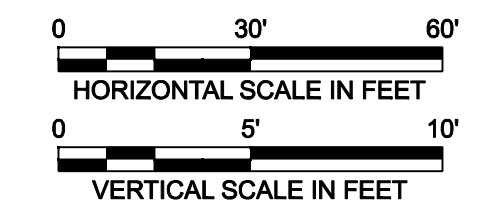
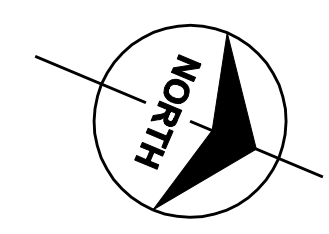
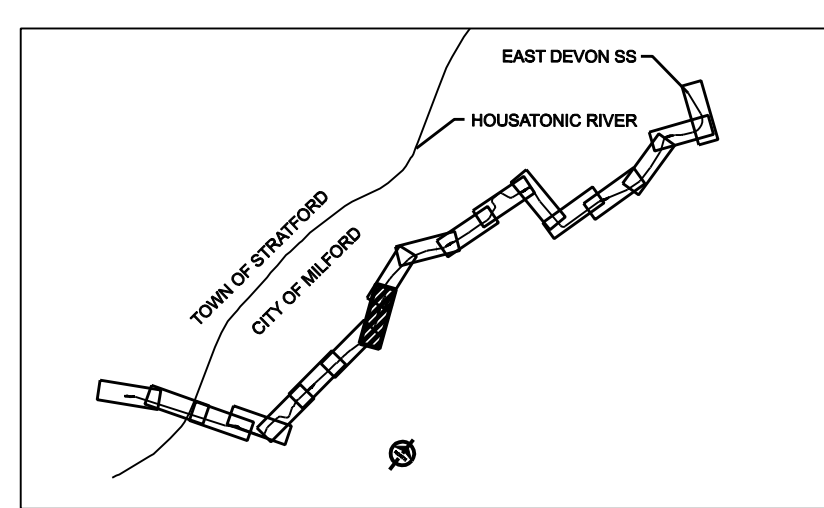
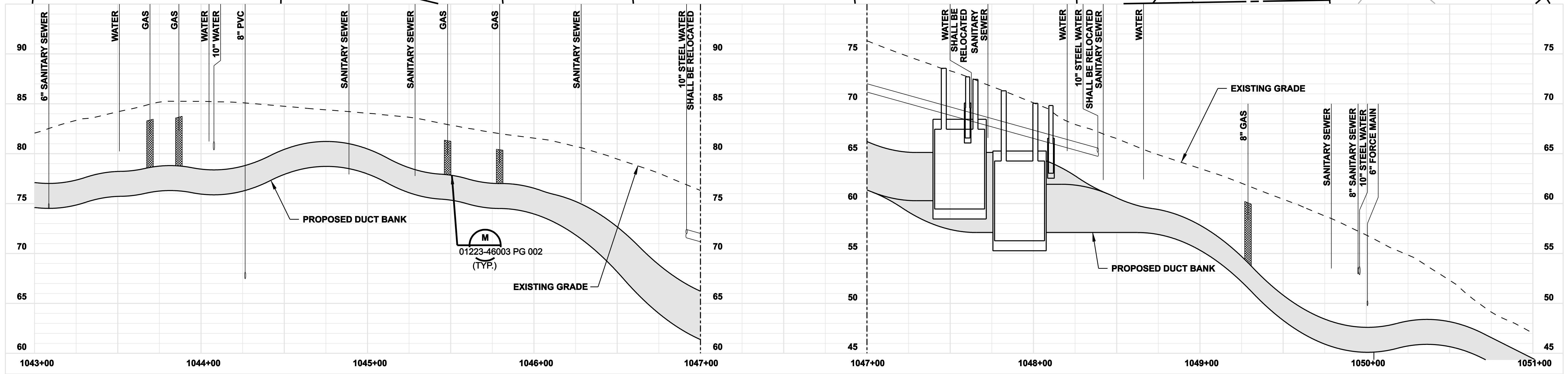
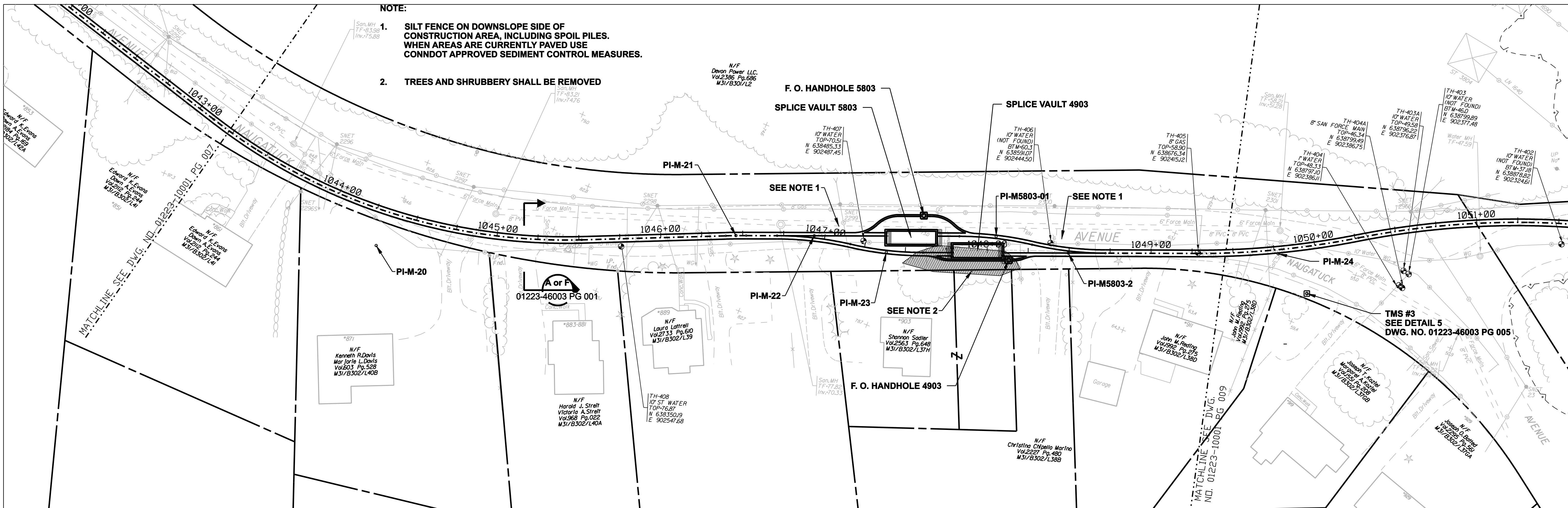
no.	date	revisions	by	chk
1	5/10/07	ISSUED CSC REVISED	CTC	

MF NO.	DATE	REVISIONS	BY	CHK	APP	APP

NORTHEAST UTILITIES SERVICE CO.

FOR	THE CONNECTICUT LIGHT & POWER COMPANY			
TITLE	MIDDLETOWN-NORWALK 345KV TRANSMISSION PROJECT			
	CITY OF MILFORD PLAN AND PROFILE Sta. 1035+50 to 1044+00			
BY	SEN-BMCD	CHKD	APP	APP
DATE	10-11-05	DATE	DATE	DATE
SCALE	AS NOTED	DWG. NO.	01223-10001 PG 007	

- NOTE:**
- SILT FENCE ON DOWNSLOPE SIDE OF CONSTRUCTION AREA, INCLUDING SPOIL PILES. WHEN AREAS ARE CURRENTLY PAVED USE CONDOT APPROVED SEDIMENT CONTROL MEASURES.**
 - TREES AND SHRUBBERY SHALL BE REMOVED**



ISSUED FOR CONSTRUCTION

DOCKET No. 272



date 10/11/05
 detailed L. ROWSE
 designed C. COURTRIGHT
 checked S. NEWLAND

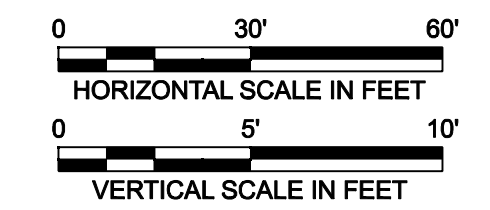
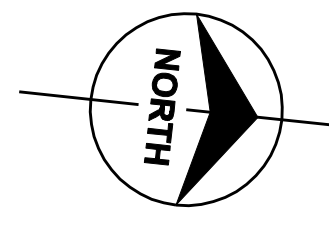
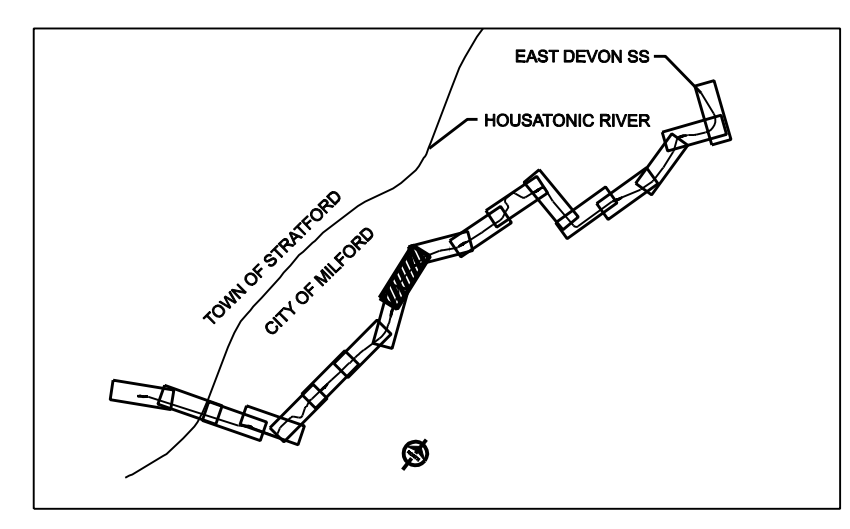
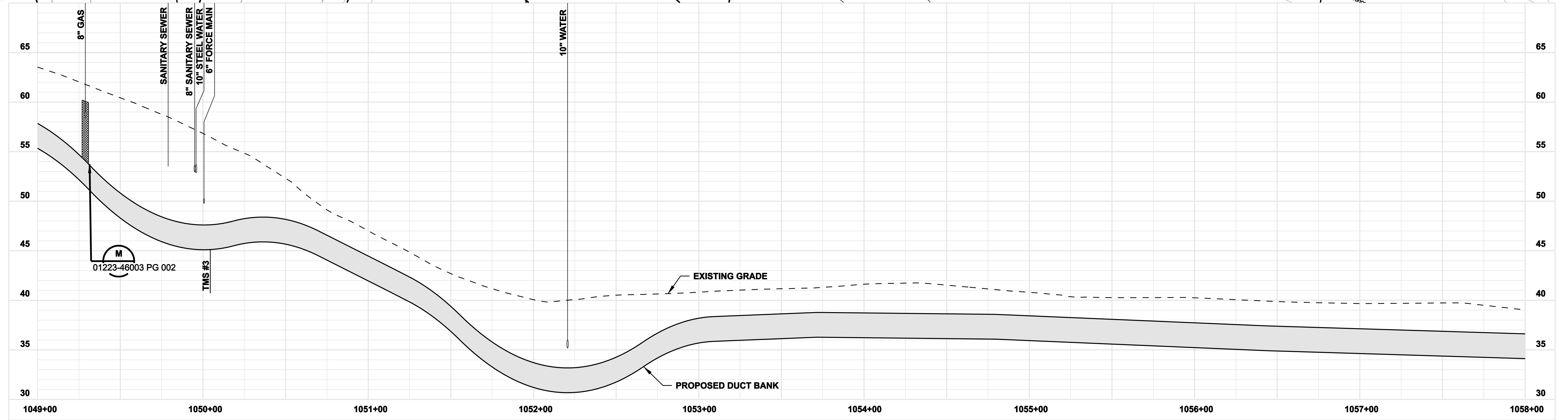
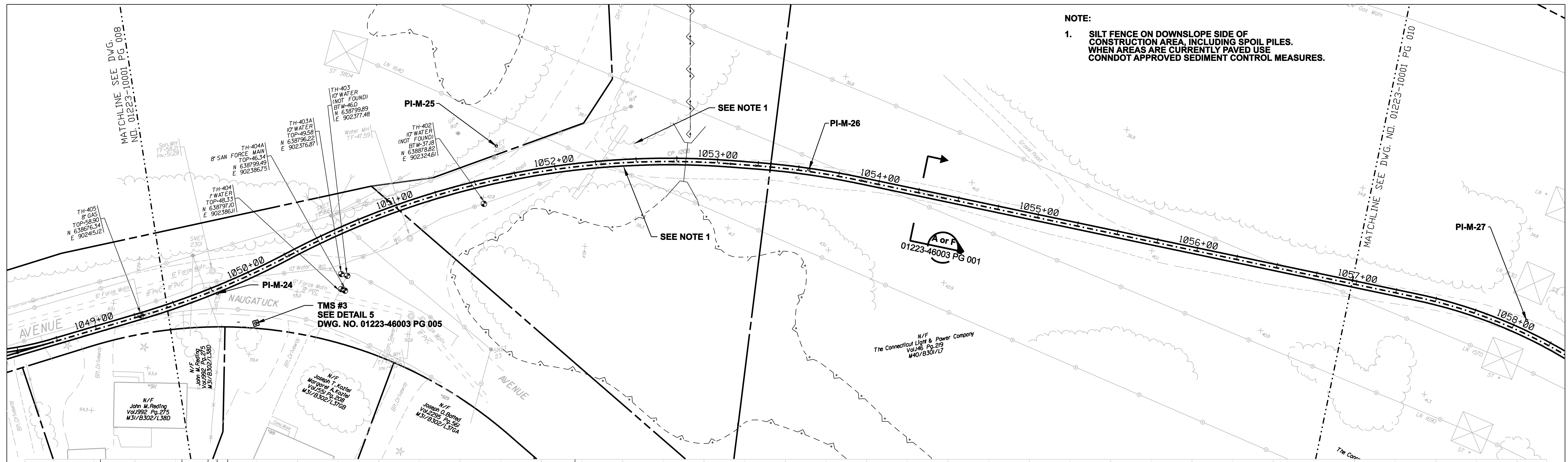
no.	date	revisions	by	chk
1	5/10/07	ISSUED CSC REVISED		CTC

MF NO.	DATE	REVISIONS	BY	CHK	APP	APP

NORTHEAST UTILITIES SERVICE CO.			
FOR THE CONNECTICUT LIGHT & POWER COMPANY			
TITLE MIDDLETOWN-NORWALK 345KV TRANSMISSION PROJECT			
CITY OF MILFORD PLAN AND PROFILE Sta. 1043+00 to 1051+00			
BY SEN-BMCD	CHKD	APP	APP
DATE 10-11-05	DATE	DATE	DATE
SCALE AS NOTED	DWG. NO.		
	D		01223-10001 PG 008

COPYRIGHT © 2007 BURNS & MCDONNELL ENGINEERING COMPANY, INC.

NOTE:
 1. SILT FENCE ON DOWNSLOPE SIDE OF CONSTRUCTION AREA, INCLUDING SPOIL PILES. WHEN AREAS ARE CURRENTLY PAVED USE CONNDOT APPROVED SEDIMENT CONTROL MEASURES.



ISSUED FOR CONSTRUCTION

DOCKET No. 272



date 10/11/05
 detailed L. ROWSE
 designed C. COURTRIGHT
 checked S. NEWLAND

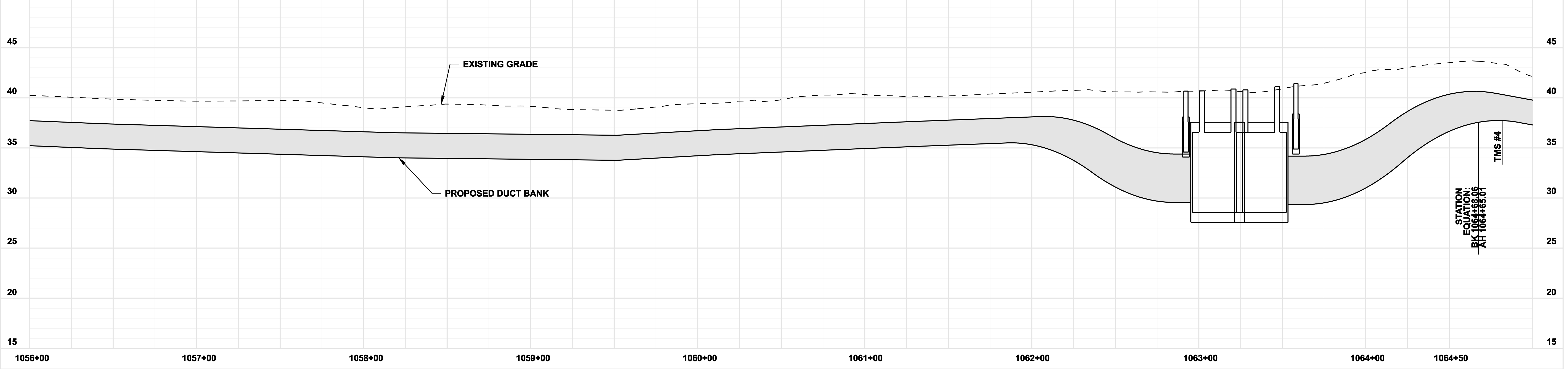
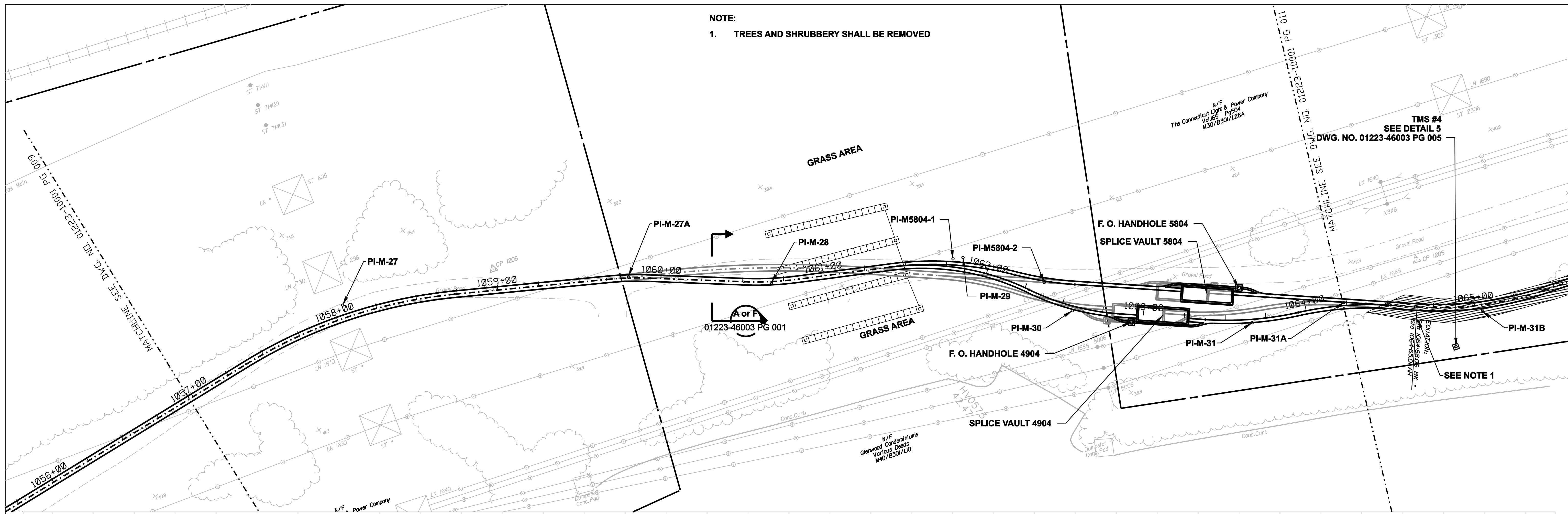
no.	date	revisions	by	chk
1	5/10/07	ISSUED CSC REVISED	CTC	

MF	NO.	DATE	REVISIONS	BY	CHK	APP	APP

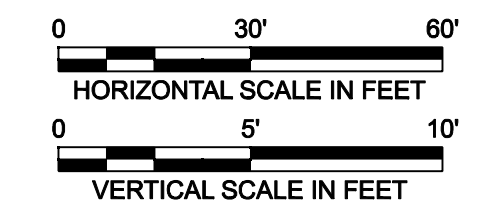
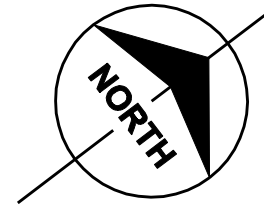
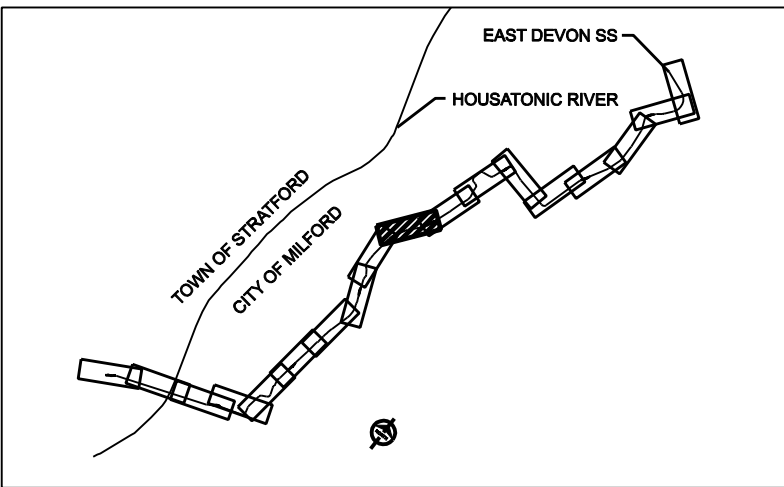
NORTHEAST UTILITIES SERVICE CO.			
FOR THE CONNECTICUT LIGHT & POWER COMPANY			
TITLE MIDDLETOWN-NORWALK 345KV TRANSMISSION PROJECT			
CITY OF MILFORD PLAN AND PROFILE Sta. 1049+00 to 1058+00			
BY SEN-BMCD	CHKD	APP	APP
DATE 10-11-05	DATE	DATE	DATE
SCALE AS NOTED	DWG. NO. 01223-10001 PG 009		

COPYRIGHT © 2007 BURNS & MCDONNELL ENGINEERING COMPANY, INC.

NOTE:
 1. TREES AND SHRUBBERY SHALL BE REMOVED



COPYRIGHT © 2007 BURNS & MCDONNELL ENGINEERING COMPANY, INC.



ISSUED FOR CONSTRUCTION

DOCKET No. 272



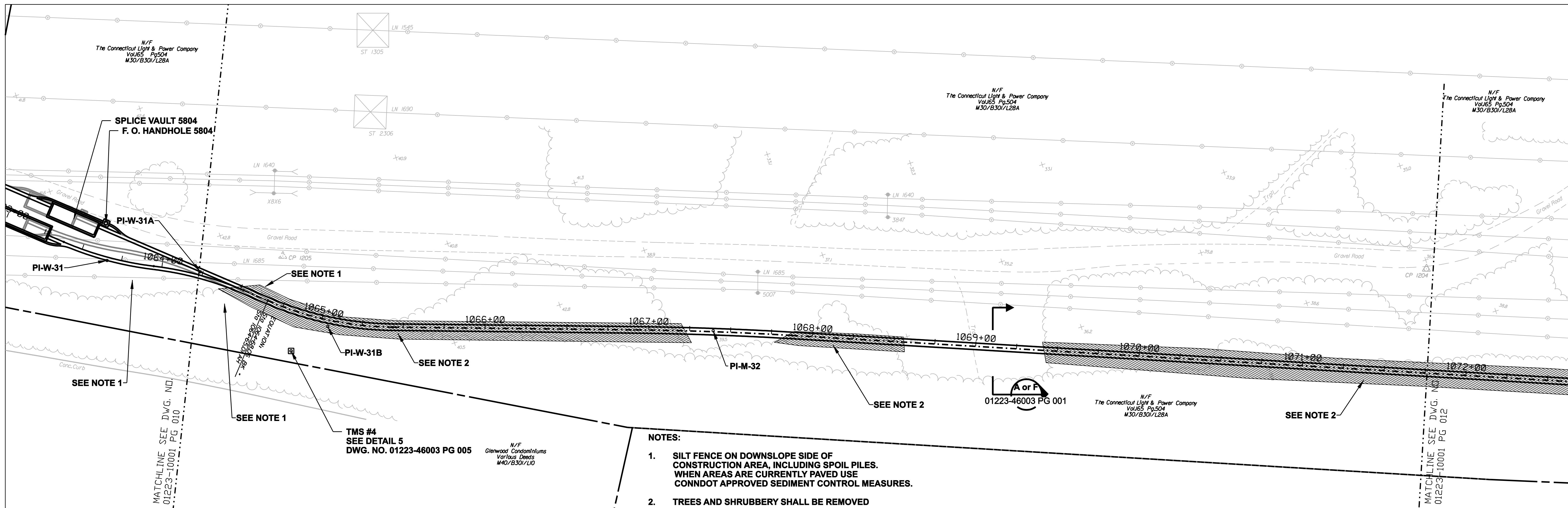
date 10/11/05
 detailed L. ROWSE
 designed C. COURTRIGHT
 checked S. NEWLAND

no.	date	revisions	by	chk
1	5/10/07	ISSUED CSC REVISED	CTC	

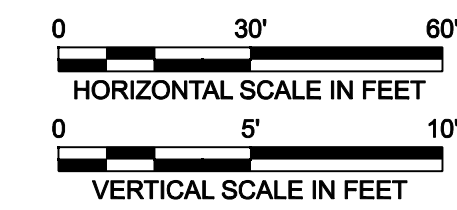
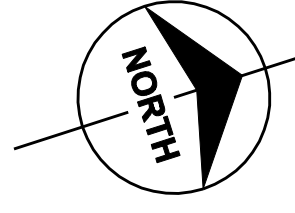
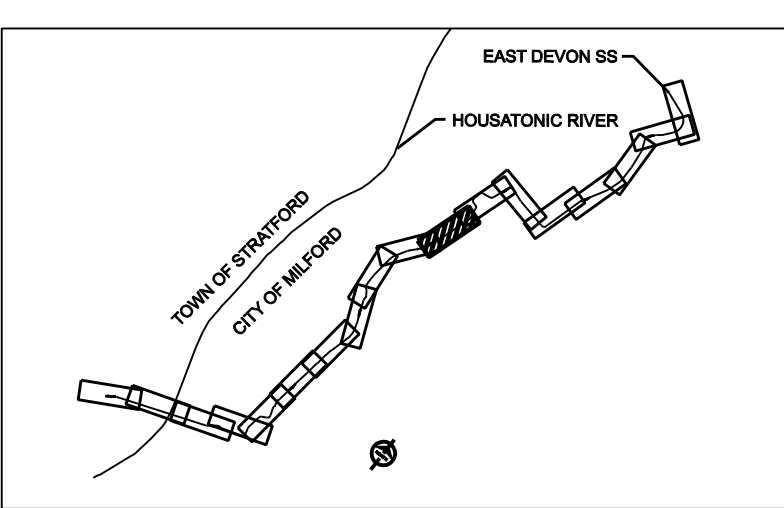
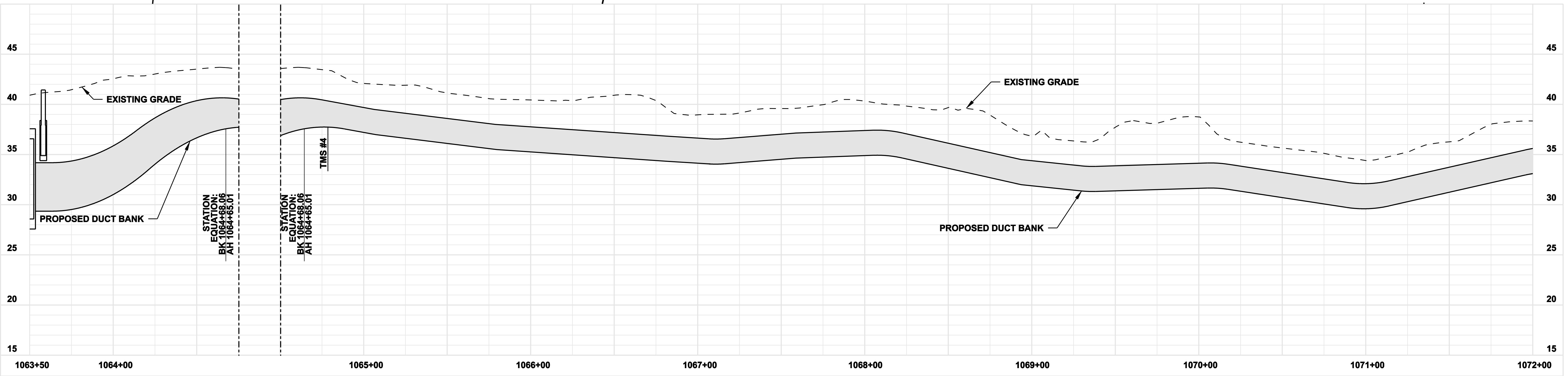
MF	NO.	DATE	REVISIONS	BY	CHK	APP	APP

NORTHEAST UTILITIES SERVICE CO.			
FOR THE CONNECTICUT LIGHT & POWER COMPANY			
TITLE MIDDLETOWN-NORWALK 345KV TRANSMISSION PROJECT			
CITY OF MILFORD PLAN AND PROFILE Sta. 1056+00 to 1065+00			
BY SEN-BMCD	CHKD	APP	APP
DATE 10-11-05	DATE	DATE	DATE
SCALE AS NOTED	DWG. NO. 01223-10001 PG 010		

COPYRIGHT © 2007 BURNS & MCDONNELL ENGINEERING COMPANY, INC.



- NOTES:**
1. SILT FENCE ON DOWNSLOPE SIDE OF CONSTRUCTION AREA, INCLUDING SPOIL PILES. WHEN AREAS ARE CURRENTLY PAVED USE CONNDOT APPROVED SEDIMENT CONTROL MEASURES.
 2. TREES AND SHRUBBERY SHALL BE REMOVED



ISSUED FOR CONSTRUCTION

DOCKET No. 272

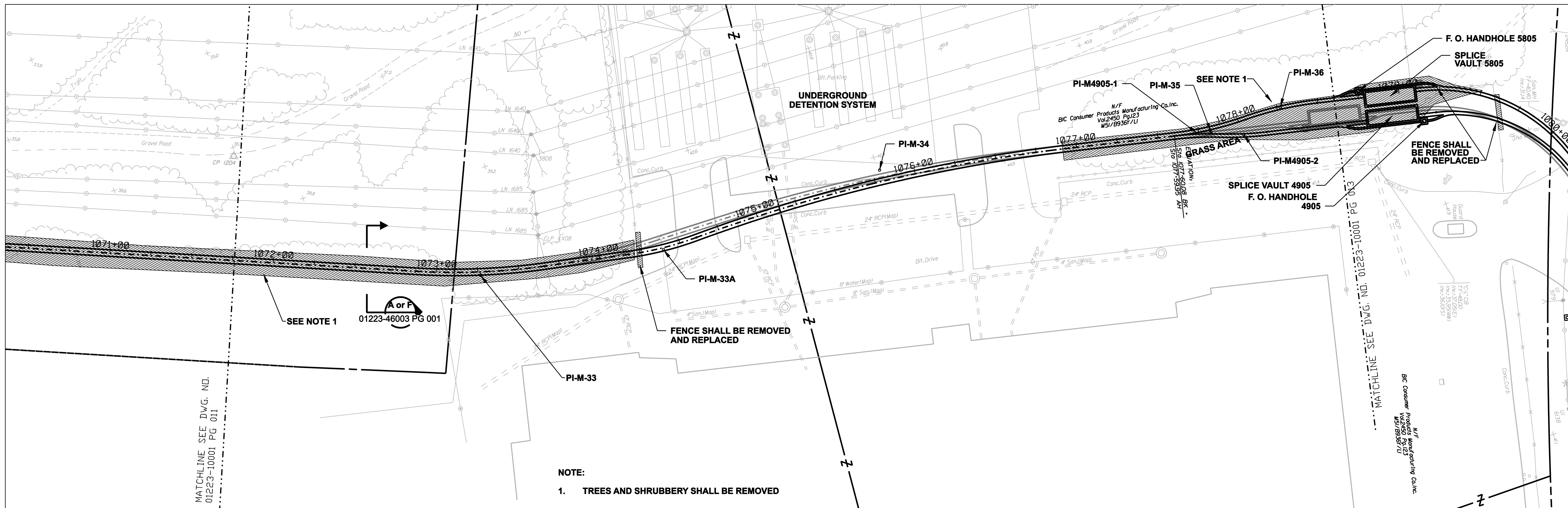


date 10/11/05
 designed C. COURTRIGHT
 detailed L. ROWSE
 checked S. NEWLAND

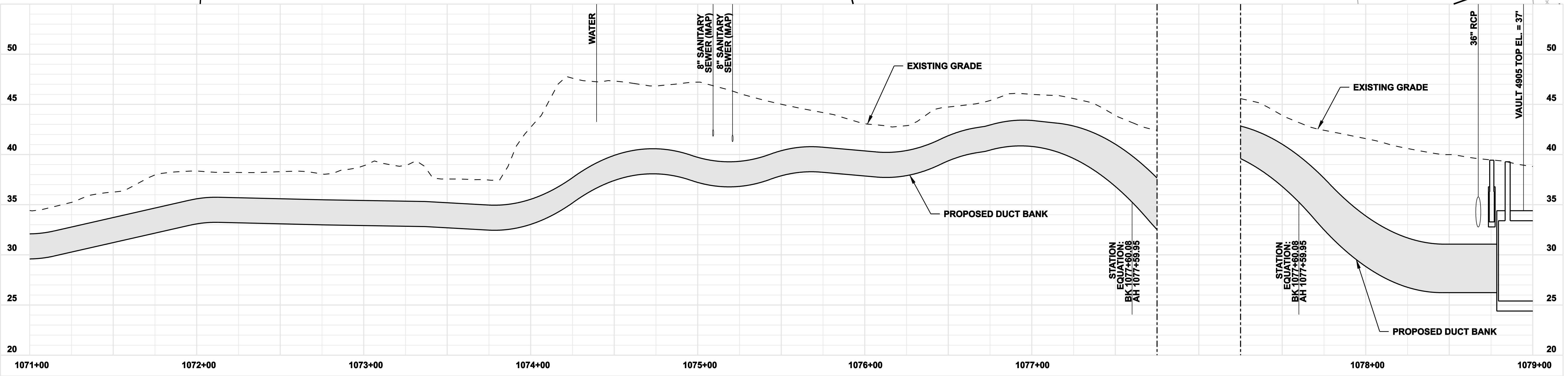
no.	date	revisions	by	chk
1	5/10/07	ISSUED CSC REVISED		CTC

MF	NO.	DATE	REVISIONS	BY	CHK	APP	APP

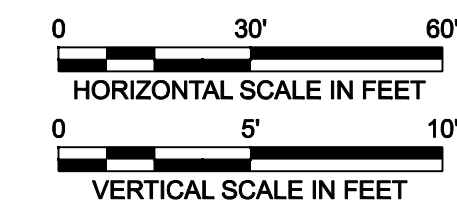
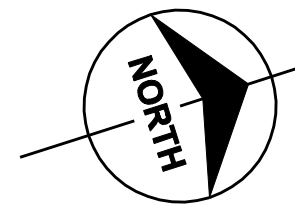
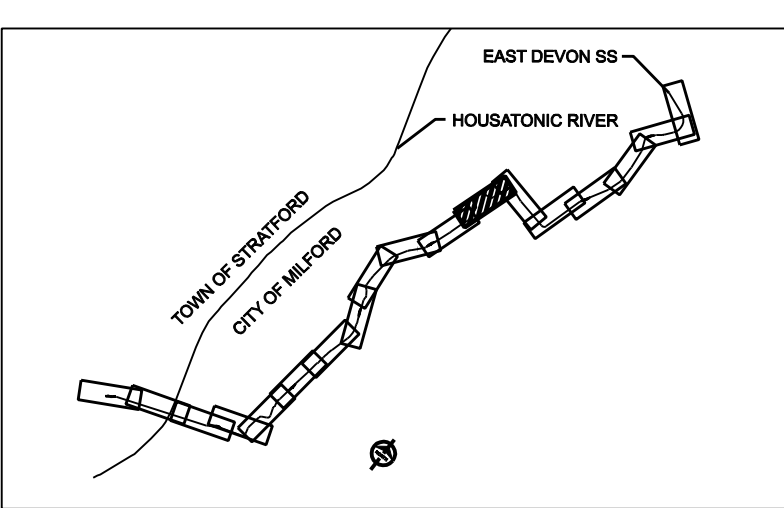
NORTHEAST UTILITIES SERVICE CO.			
FOR THE CONNECTICUT LIGHT & POWER COMPANY			
TITLE MIDDLETOWN-NORWALK 345KV TRANSMISSION PROJECT			
CITY OF MILFORD PLAN AND PROFILE Sta. 1063+50 to 1072+00			
BY SEN-BMCD	CHKD	APP	APP
DATE 10-11-05	DATE	DATE	DATE
SCALE AS NOTED	D	DWG. NO. 01223-10001 PG 011	



NOTE:
1. TREES AND SHRUBBERY SHALL BE REMOVED



COPYRIGHT © 2007 BURNS & MCDONNELL ENGINEERING COMPANY, INC.



ISSUED FOR CONSTRUCTION

DOCKET No. 272

no.	date	revisions	by	chk
1	5/10/07	ISSUED CSC REVISED	CTC	

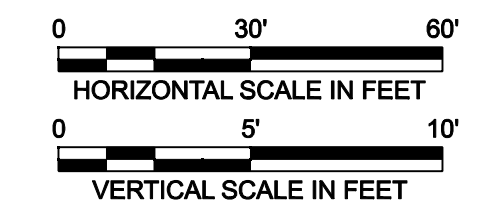
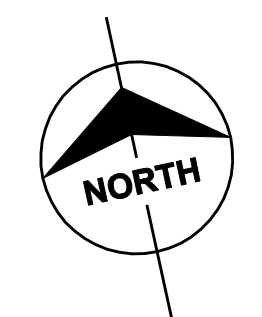
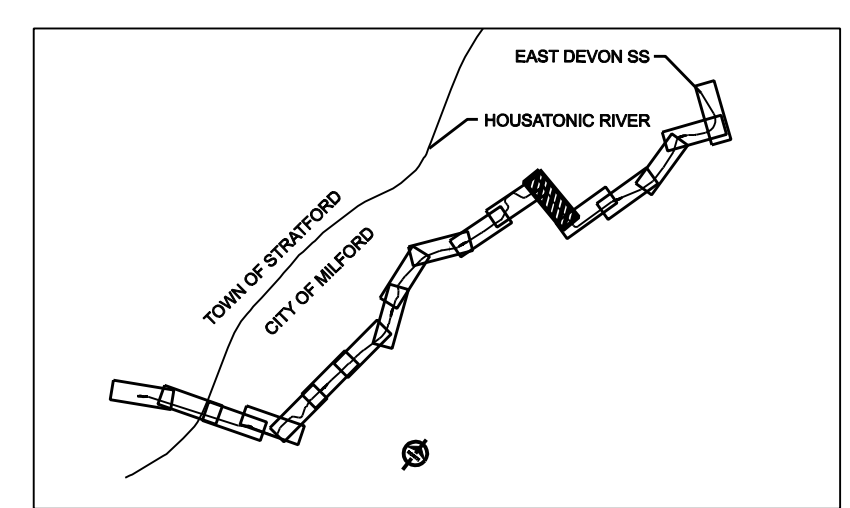
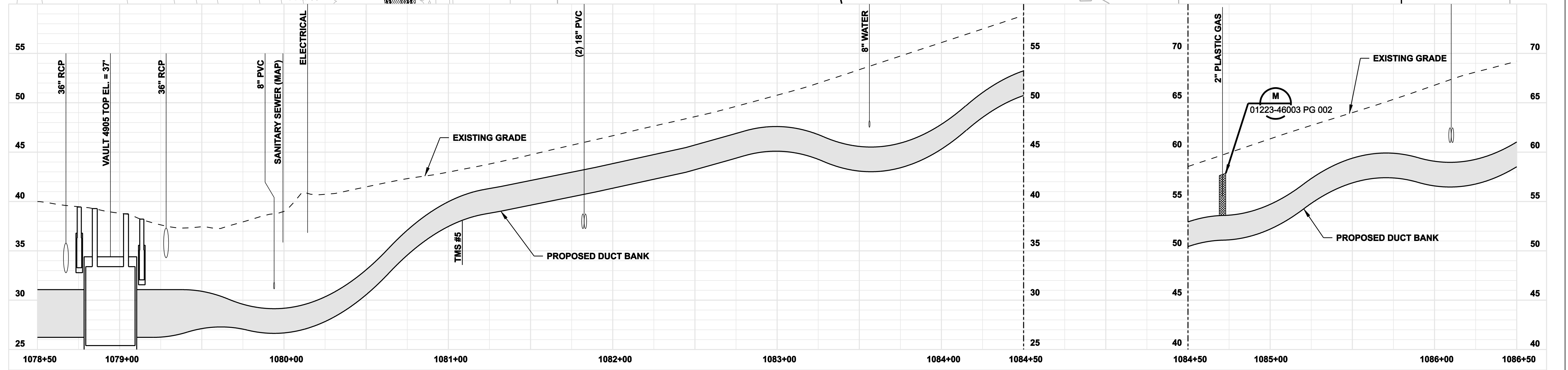
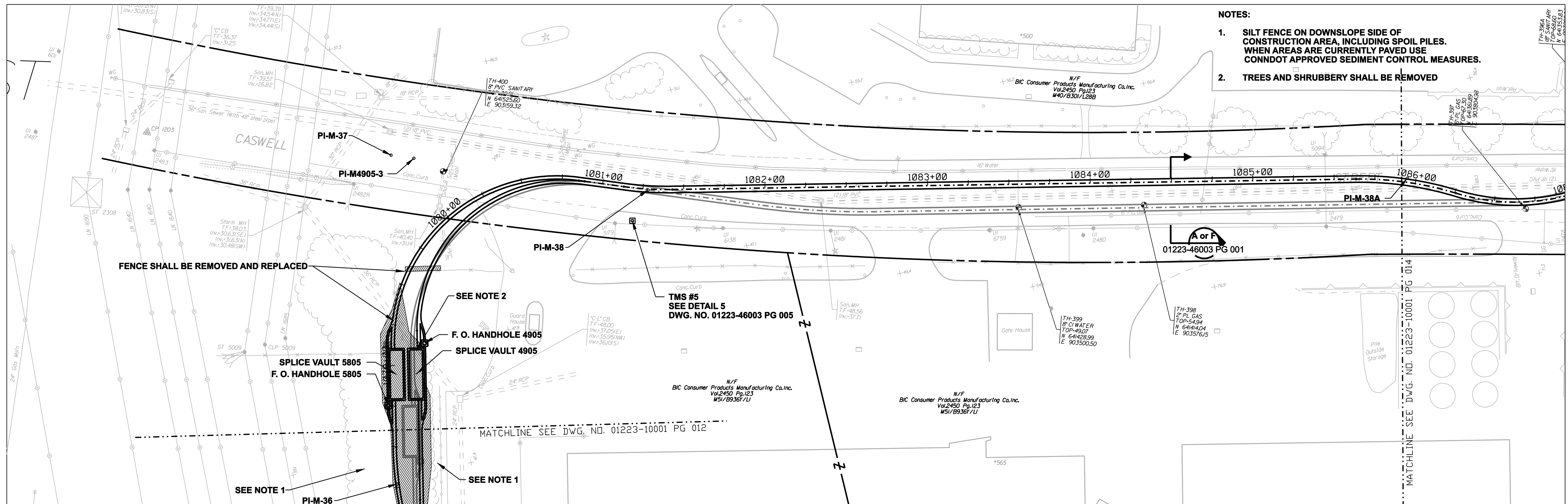


date 10/11/05
designed C. COURTRIGHT
detailed L. ROWSE
checked S. NEWLAND

MF	NO.	DATE	REVISIONS	BY	CHK	APP	APP

NORTHEAST UTILITIES SERVICE CO.			
FOR THE CONNECTICUT LIGHT & POWER COMPANY			
TITLE MIDDLETOWN-NORWALK 345KV TRANSMISSION PROJECT			
CITY OF MILFORD PLAN AND PROFILE Sta. 1071+00 to 1079+00			
BY SEN-BMCD	CHKD	APP	APP
DATE 10-11-05	DATE	DATE	DATE
SCALE AS NOTED	D	DWG. NO. 01223-10001 PG 012	

- NOTES:**
1. SILT FENCE ON DOWNSLOPE SIDE OF CONSTRUCTION AREA, INCLUDING SPOIL PILES. WHEN AREAS ARE CURRENTLY PAVED USE CONDOT APPROVED SEDIMENT CONTROL MEASURES.
 2. TREES AND SHRUBBERY SHALL BE REMOVED



ISSUED FOR CONSTRUCTION

DOCKET No. 272



date 10/11/05
 detailed L. ROWSE
 designed C. COURTRIGHT
 checked S. NEWLAND

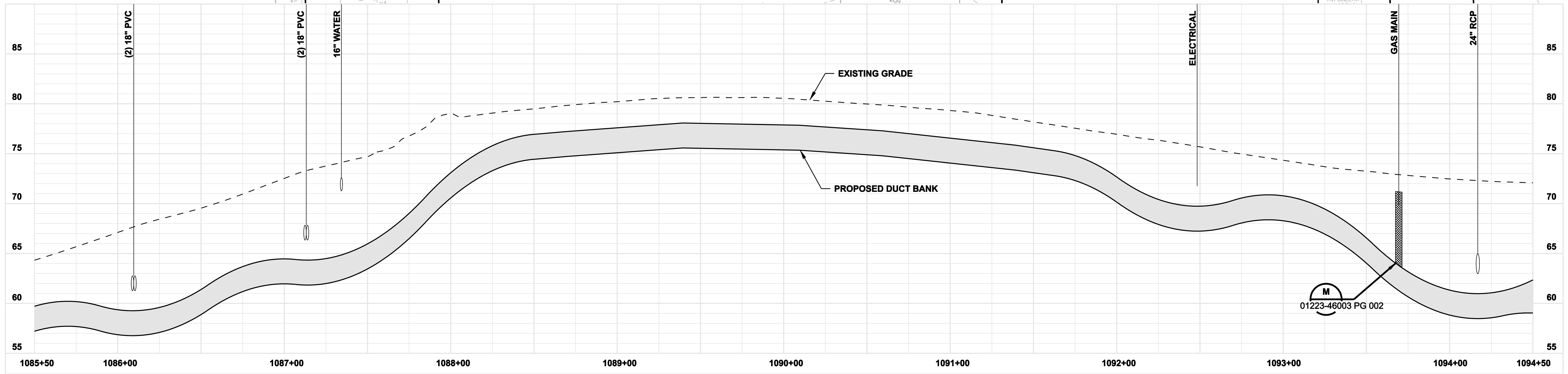
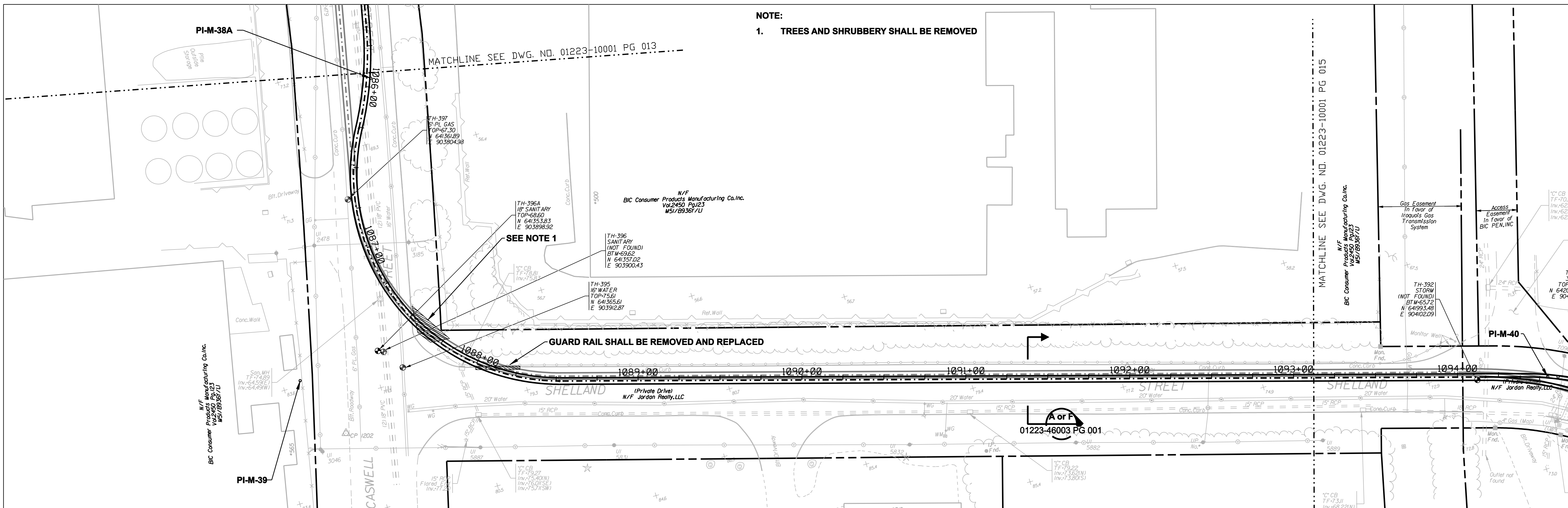
no.	date	revisions	by	chk
1	5/10/07	ISSUED CSC REVISED	CTC	

MF	NO.	DATE	REVISIONS	BY	CHK	APP	APP

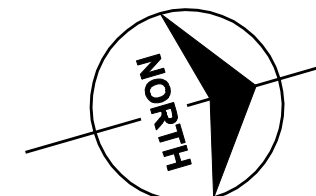
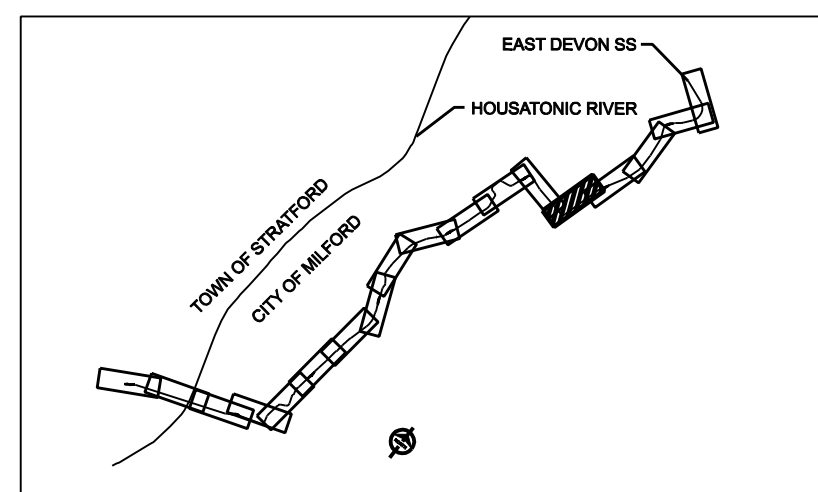
NORTHEAST UTILITIES SERVICE CO.			
FOR THE CONNECTICUT LIGHT & POWER COMPANY			
TITLE MIDDLETOWN-NORWALK 345KV TRANSMISSION PROJECT			
CITY OF MILFORD PLAN AND PROFILE Sta. 1078+50 to 1086+50			
BY SEN-BMCD	CHKD	APP	APP
DATE 10-11-05	DATE	DATE	DATE
SCALE AS NOTED	D	DWG. NO. 01223-10001 PG 013	

COPYRIGHT © 2007 BURNS & MCDONNELL ENGINEERING COMPANY, INC.

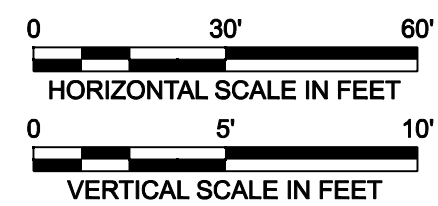
NOTE:
 1. TREES AND SHRUBBERY SHALL BE REMOVED



COPYRIGHT © 2007 BURNS & MCDONNELL ENGINEERING COMPANY, INC.




DOCKET No. 272



ISSUED FOR CONSTRUCTION

no.	date	revisions	by	chk
1	5/10/07	ISSUED CSC REVISED	CTC	



Burns & McDonnell
SINCE 1898

date	10/11/05	detailed	L. ROWSE
designed	C. COURTRIGHT	checked	S. NEWLAND

MF	NO.	DATE	REVISIONS	BY	CHK	APP	APP

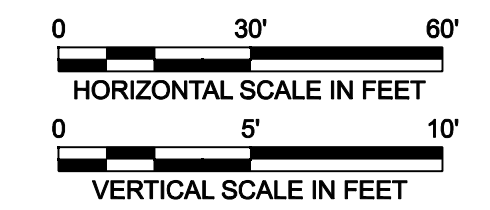
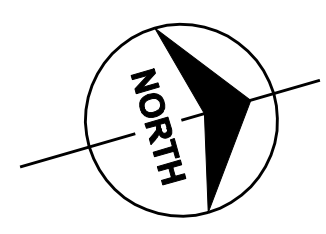
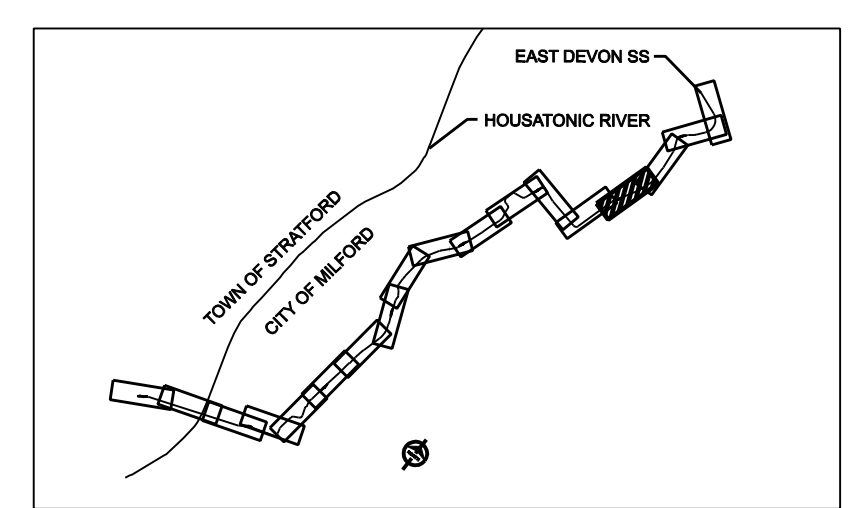
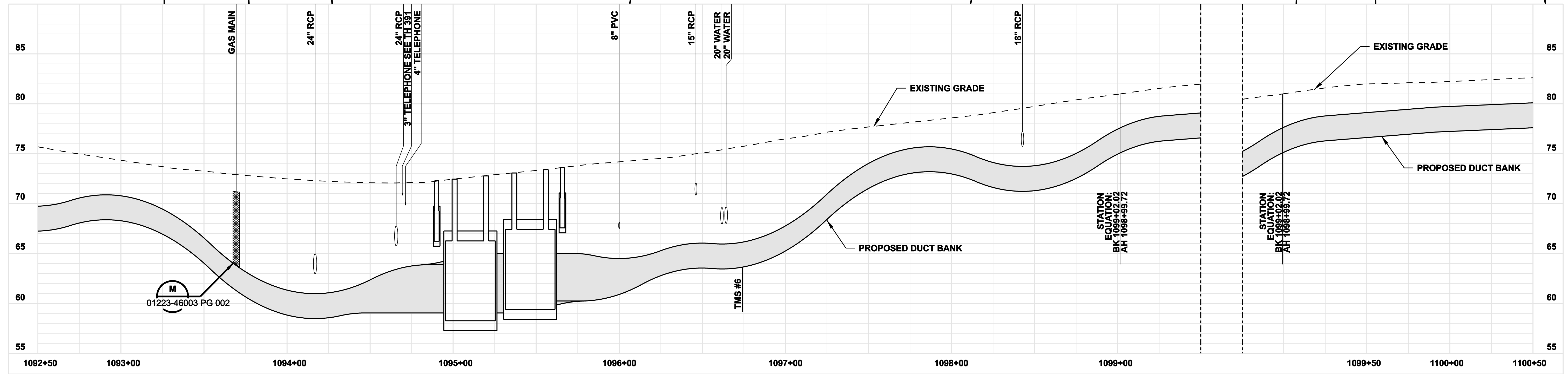
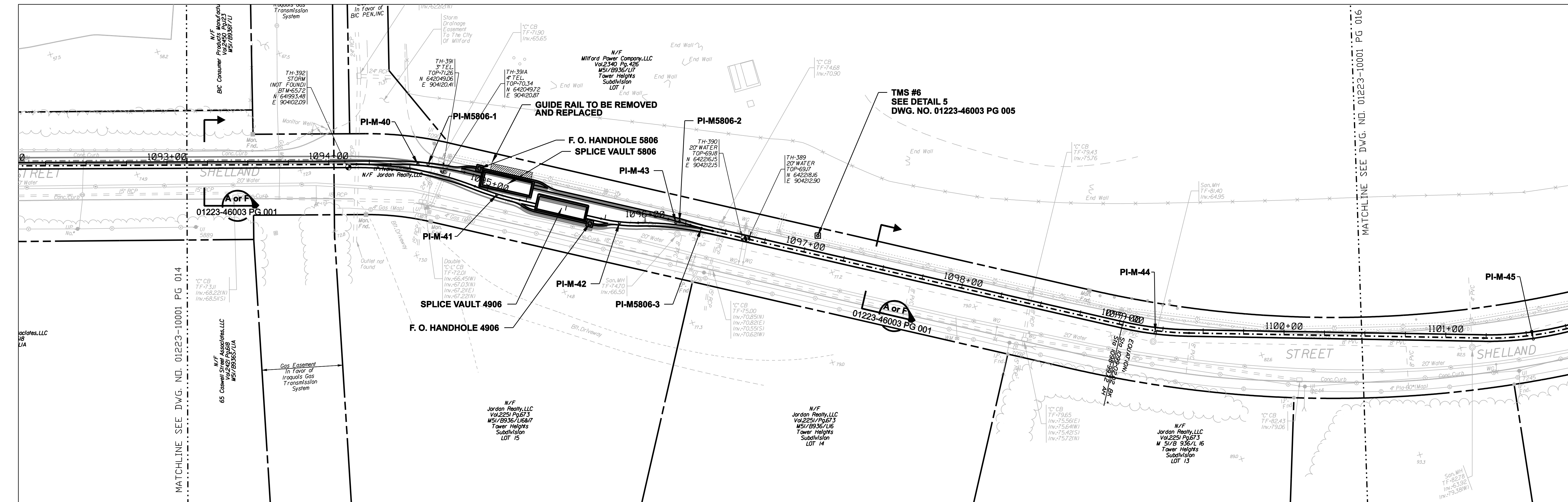
NORTHEAST UTILITIES SERVICE CO.

FOR THE CONNECTICUT LIGHT & POWER COMPANY

TITLE
MIDDLETOWN-NORWALK 345KV TRANSMISSION PROJECT

CITY OF MILFORD
PLAN AND PROFILE Sta. 1085+50 to 1094+50

BY SEN-BMCD	CHKD	APP	APP
DATE 10-11-05	DATE	DATE	DATE
SCALE AS NOTED	D	DWG. NO.	01223-10001 PG 014



ISSUED FOR CONSTRUCTION

DOCKET No. 272



date 10/11/05
 detailed L. ROWSE
 designed C. COURTRIGHT
 checked S. NEWLAND

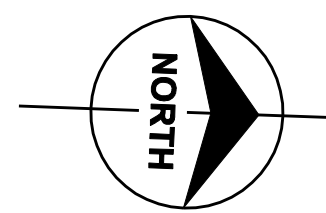
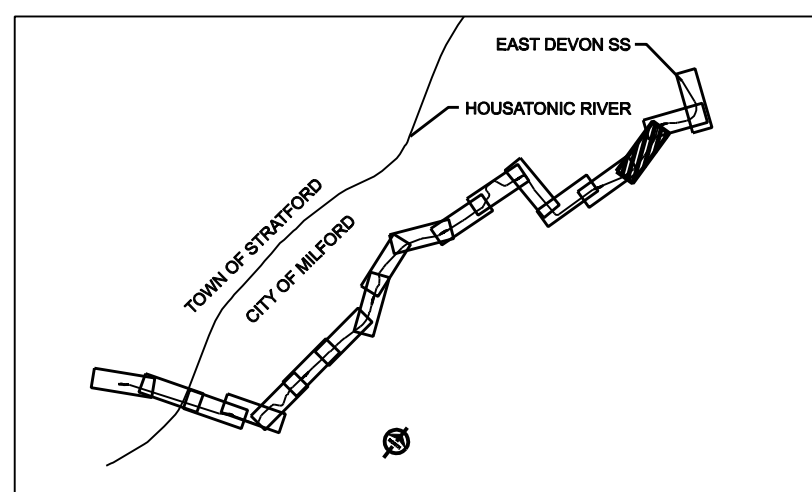
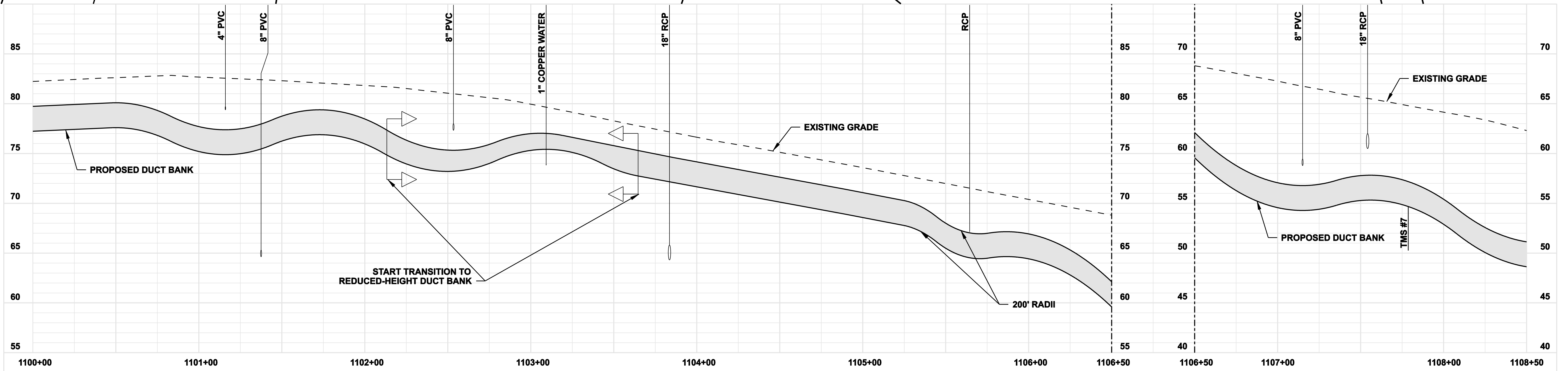
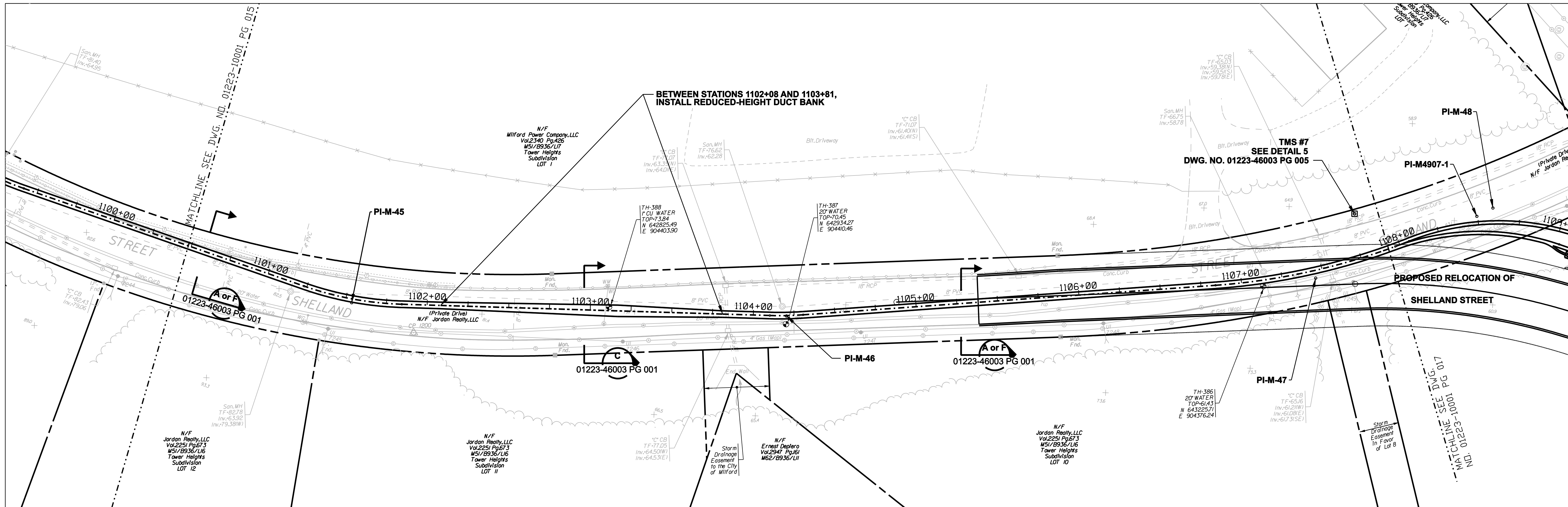
no.	date	revisions	by	chk
1	5/10/07	ISSUED CSC REVISED	CTC	

MF	NO.	DATE	REVISIONS	BY	CHK	APP	APP

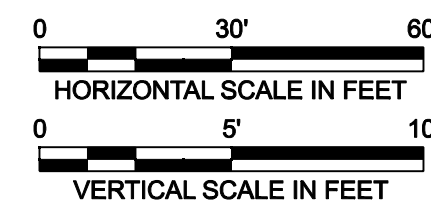
NORTHEAST UTILITIES SERVICE CO.			
FOR THE CONNECTICUT LIGHT & POWER COMPANY			
TITLE MIDDLETOWN-NORWALK 345KV TRANSMISSION PROJECT			
CITY OF MILFORD PLAN AND PROFILE Sta. 1092+50 to 1100+50			
BY SEN-BMCD	CHKD	APP	APP
DATE 10-11-05	DATE	DATE	DATE
SCALE AS NOTED		DWG. NO.	
	D	01223-10001 PG 015	

COPYRIGHT © 2007 BURNS & MCDONNELL ENGINEERING COMPANY, INC.

COPYRIGHT © 2007 BURNS & MCDONNELL ENGINEERING COMPANY, INC.



DOCKET No. 272



**ISSUED FOR
CONSTRUCTION**

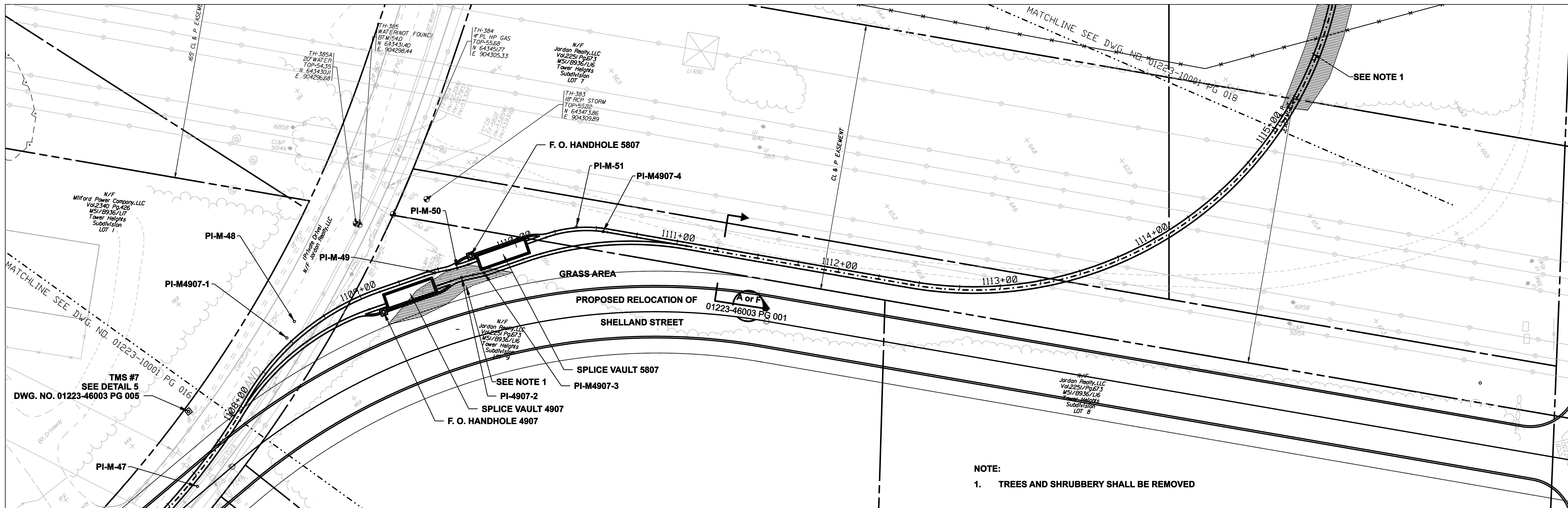
no.	date	revisions	by	chk
1	5/10/07	ISSUED CSC REVISED	CTC	



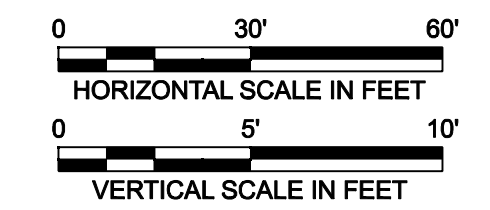
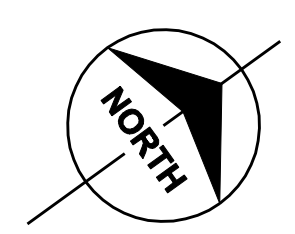
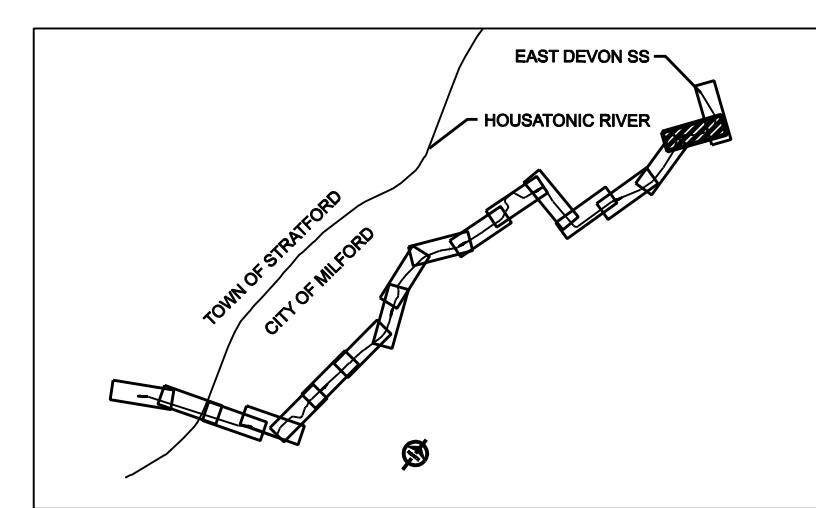
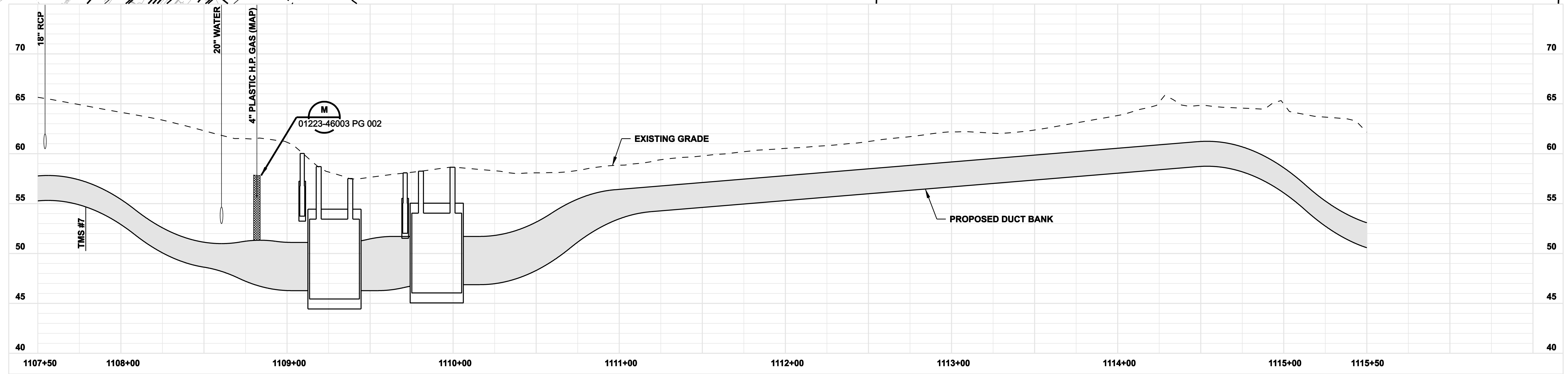
date: 10/11/05
designed: C. COURTRIGHT
detailed: L. ROWSE
checked: S. NEWLAND

MF	NO.	DATE	REVISIONS	BY	CHK	APP	APP

NORTHEAST UTILITIES SERVICE CO.			
FOR THE CONNECTICUT LIGHT & POWER COMPANY			
TITLE: MIDDLETOWN-NORWALK 345KV TRANSMISSION PROJECT			
CITY OF MILFORD PLAN AND PROFILE Sta. 1100+00 to 1108+50			
BY: SEN-BMCD	CHKD:	APP:	APP:
DATE: 10-11-05	DATE:	DATE:	DATE:
SCALE: AS NOTED	DWG. NO.: 01223-10001 PG 016		



NOTE:
1. TREES AND SHRUBBERY SHALL BE REMOVED



ISSUED FOR
CONSTRUCTION

DOCKET No. 272



date 10/11/05
designed C. COURTRIGHT
detailed L. ROWSE
checked S. NEWLAND

no.	date	revisions	by	chk
1	5/10/07	ISSUED CSC REVISED	CTC	

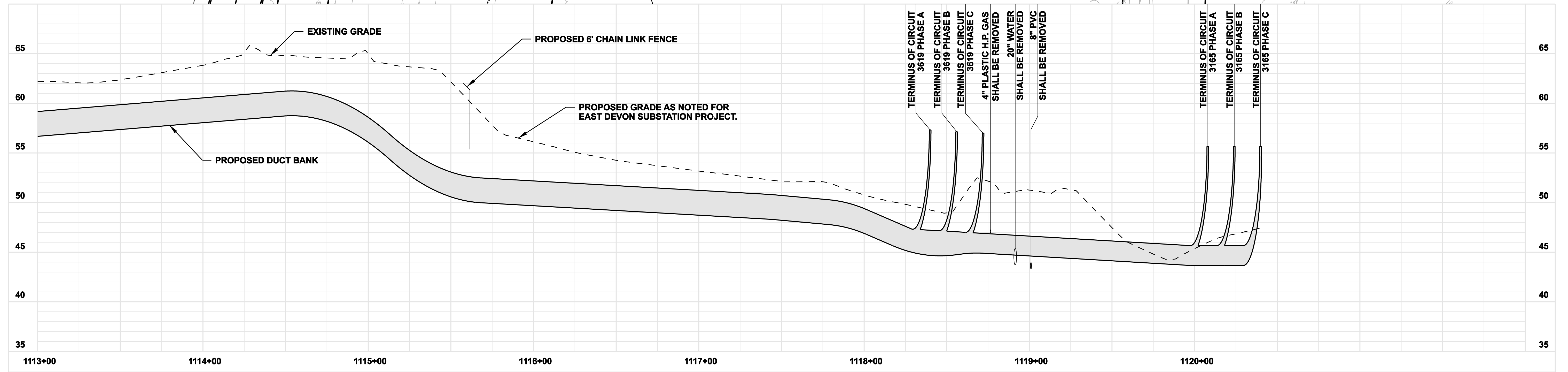
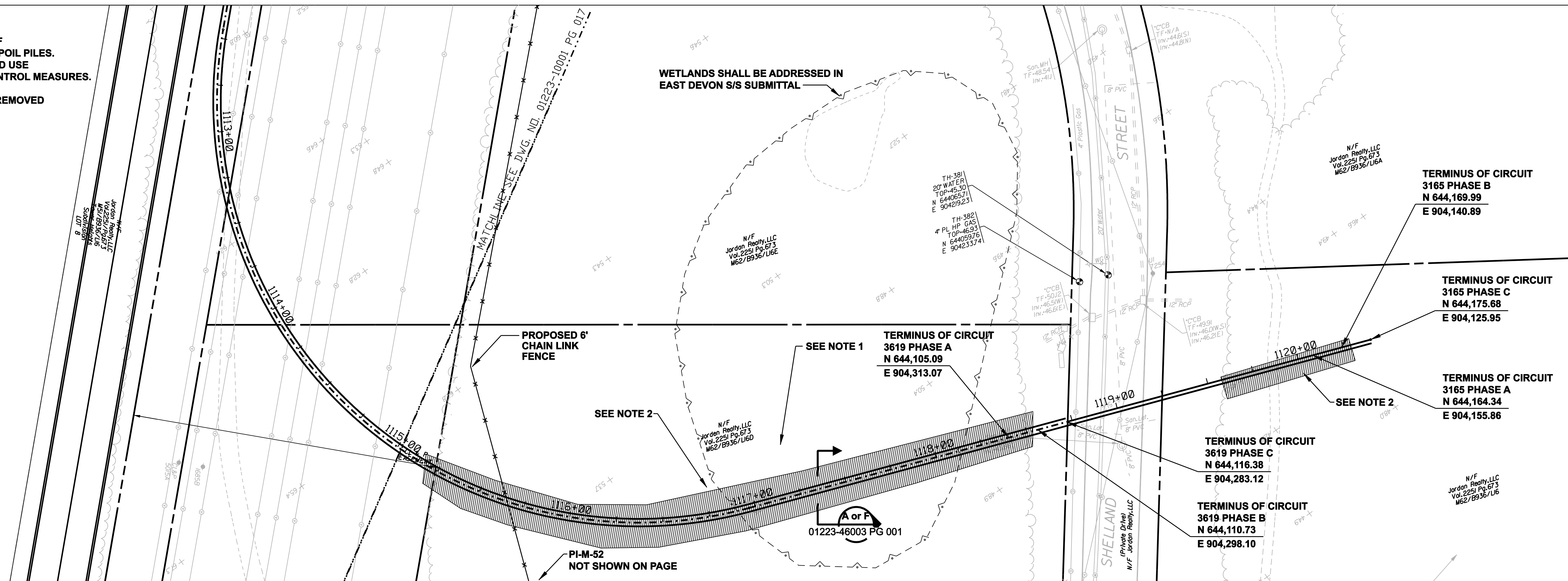
MF NO.	DATE	REVISIONS	BY	CHK	APP	APP

NORTHEAST UTILITIES SERVICE CO.			
FOR THE CONNECTICUT LIGHT & POWER COMPANY			
TITLE MIDDLETOWN-NORWALK 345KV TRANSMISSION PROJECT			
CITY OF MILFORD PLAN AND PROFILE Sta. 1107+50 to 1115+50			
BY SEN-BMCD	CHKD	APP	APP
DATE 10-11-05	DATE	DATE	DATE
SCALE AS NOTED	DWG. NO. 01223-10001 PG 017		

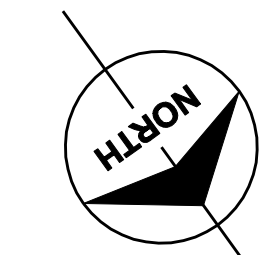
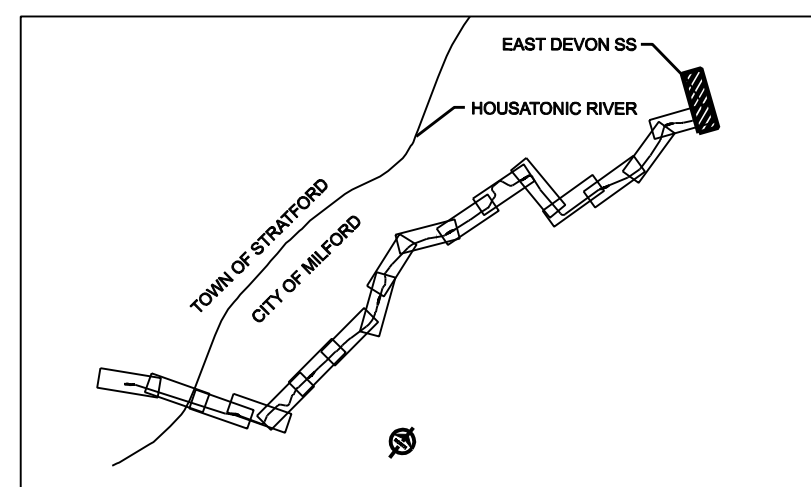
COPYRIGHT © 2007 BURNS & MCDONNELL ENGINEERING COMPANY, INC.

NOTES:

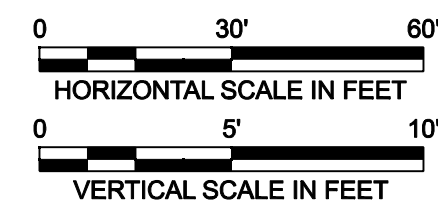
- SILT FENCE ON DOWNSLOPE SIDE OF CONSTRUCTION AREA, INCLUDING SPOIL PILES. WHEN AREAS ARE CURRENTLY PAVED USE CONNDOT APPROVED SEDIMENT CONTROL MEASURES.**
- TREES AND SHRUBBERY SHALL BE REMOVED**



COPYRIGHT © 2007 BURNS & MCDONNELL ENGINEERING COMPANY, INC.



DOCKET No. 272



**ISSUED FOR
CONSTRUCTION**



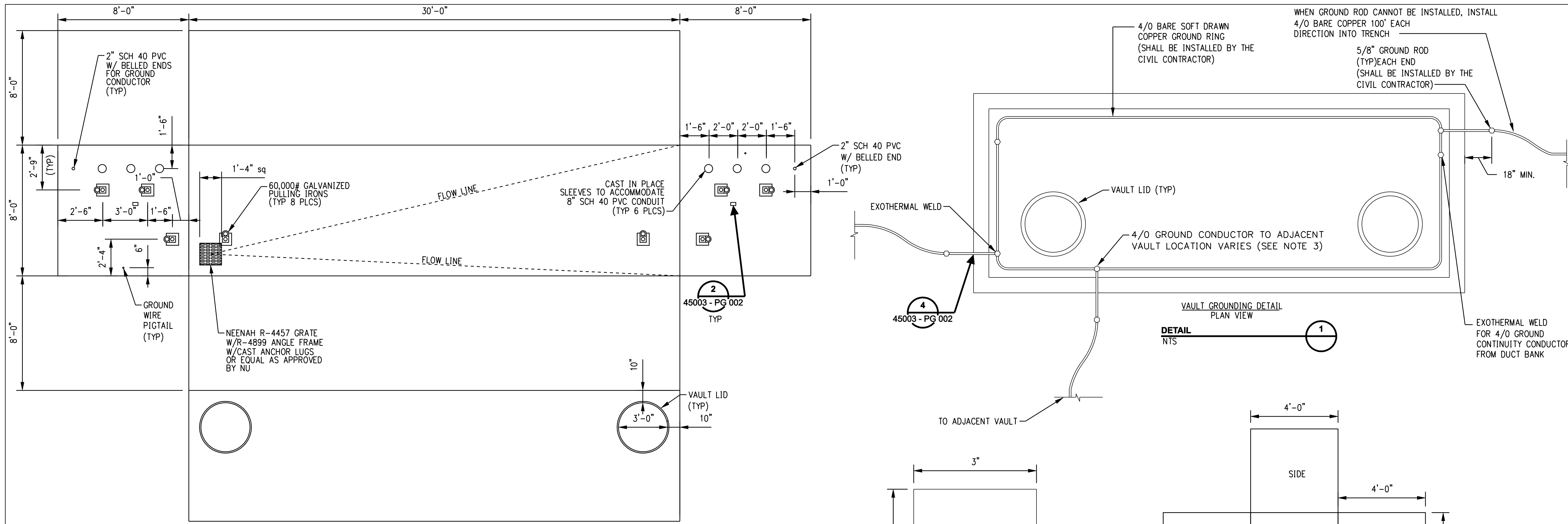
date 10/11/05
designed C. COURTRIGHT
detailed L. ROWSE
checked S. NEWLAND

no.	date	revisions	by	chk
1	5/10/07	ISSUED CSC REVISED		CTC

MF NO.	DATE	REVISIONS	BY	CHK	APP	APP

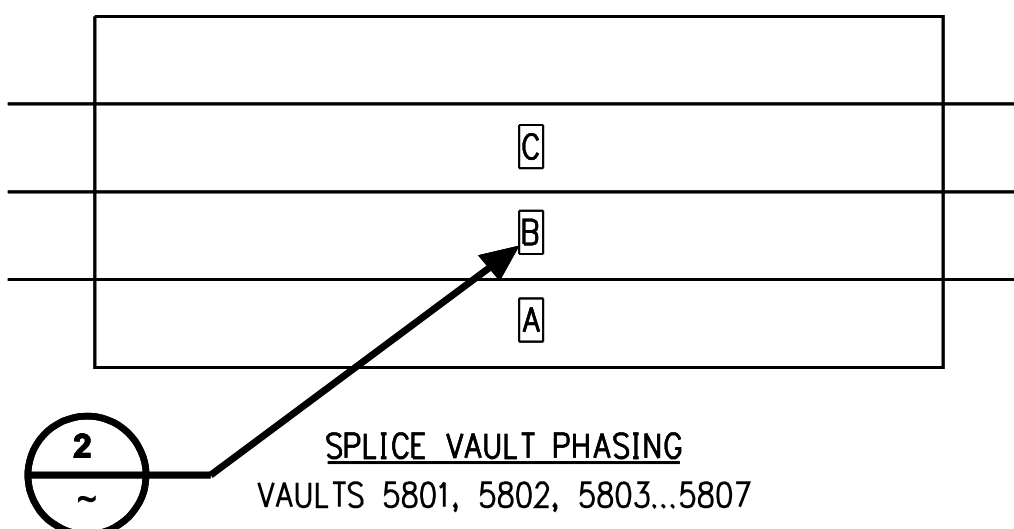
NORTHEAST UTILITIES SERVICE CO.
FOR THE CONNECTICUT LIGHT & POWER COMPANY
TITLE MIDDLETOWN-NORWALK 345KV TRANSMISSION PROJECT
CITY OF MILFORD
PLAN AND PROFILE Sta. 1113+00 to EAST DEVON SS

BY SEN-BMCD	CHKD	APP	APP
DATE 10-11-05	DATE	DATE	DATE
SCALE AS NOTED	D	DWG. NO. 01223-10001 PG 018	

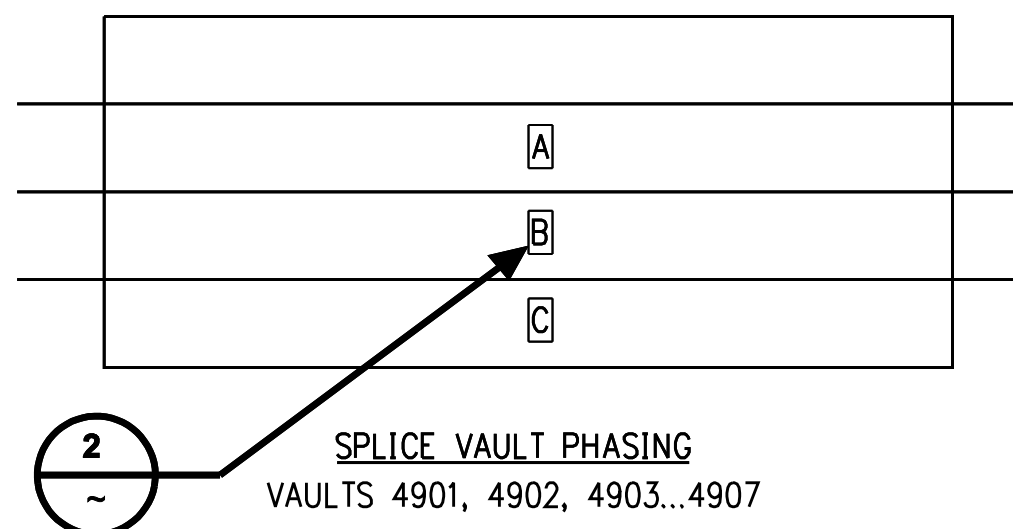


TYPICAL SPLICE VAULT DEVELOPMENT PLAN

DETAIL
NTS



2
~
SPLICE VAULT PHASING
VAULTS 5801, 5802, 5803...5807

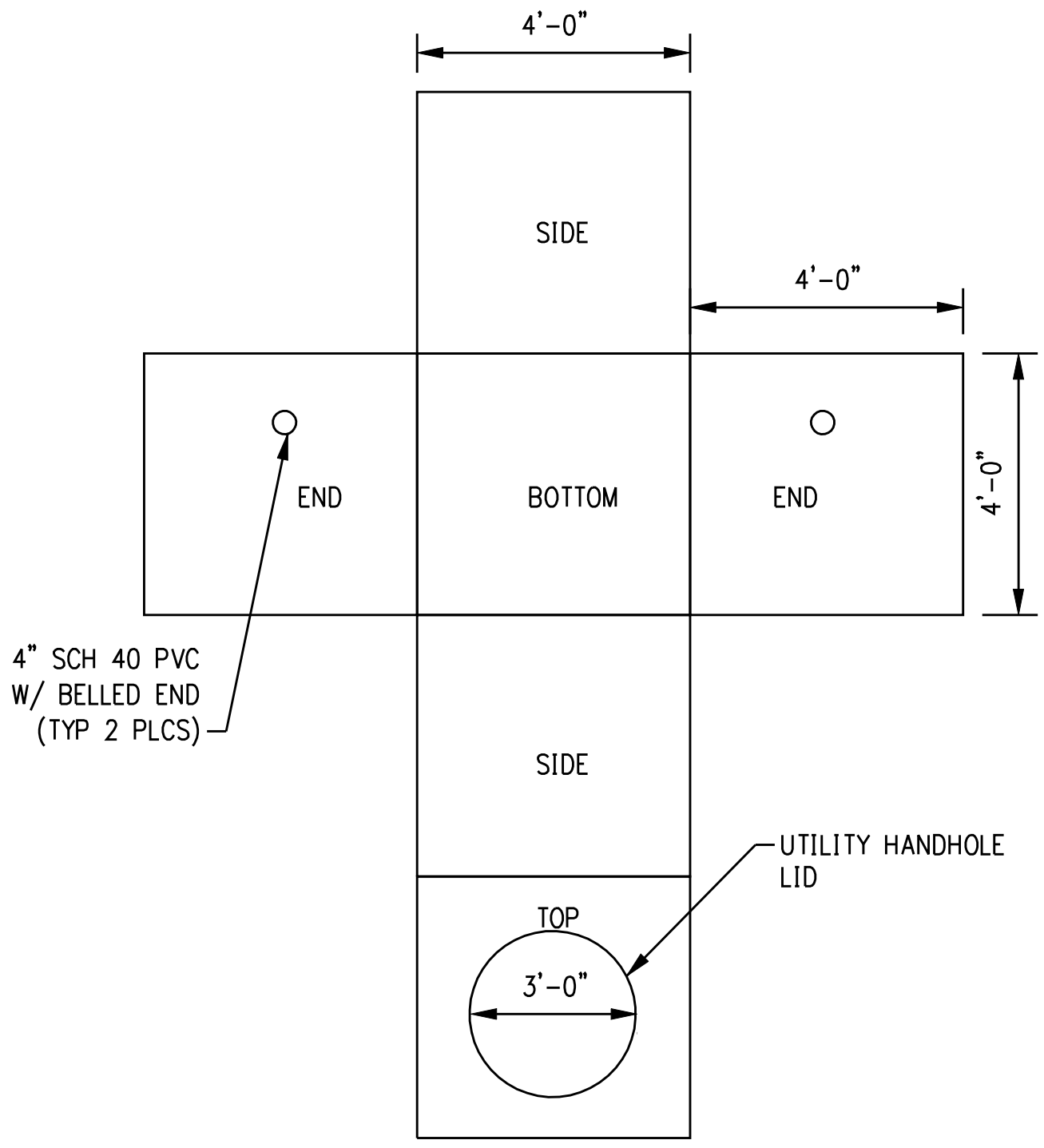


2
~
SPLICE VAULT PHASING
VAULTS 4901, 4902, 4903...4907

DETAIL
NTS

- NOTES:
1. CHARACTER SHALL BE 4" HIGH BOLD TYPE.
 2. CHARACTER SHALL BE CENTERED ON SIGN.
 3. BACKGROUND: WHITE
LETTERING: BLACK
CHARACTERS: A, B & C AS SHOWN
 4. ELECTRICAL CONTRACTOR SHALL ATTACH TAG TO SPLICE.

DETAIL
NTS



TYPICAL FIBER OPTIC HANDHOLE DEVELOPMENT PLAN

DETAIL
NTS

- NOTES:
1. GROUND PIGTAILS TO EXTEND A MINIMUM OF 18 INCHES FROM BOTH SIDES OF VAULT WALL PENETRATION.
 2. ALL EXTERNAL AREAS OF VAULT SHALL BE SEALED USING SONNEDORN HYDROCID 700 OR APPROVED NU EQUIVALENT.
 3. EACH VAULT SHALL HAVE AN ADDITIONAL 2" SCHEDULE 40 PVC WITH BELLED ENDS CAST IN PLACE TO CONNECT INTERNAL VAULT GROUNDING AND COMPLETE CONNECTION WITH EXOTHERMAL WELD.

ISSUED FOR
CONSTRUCTION

DOCKET No. 272



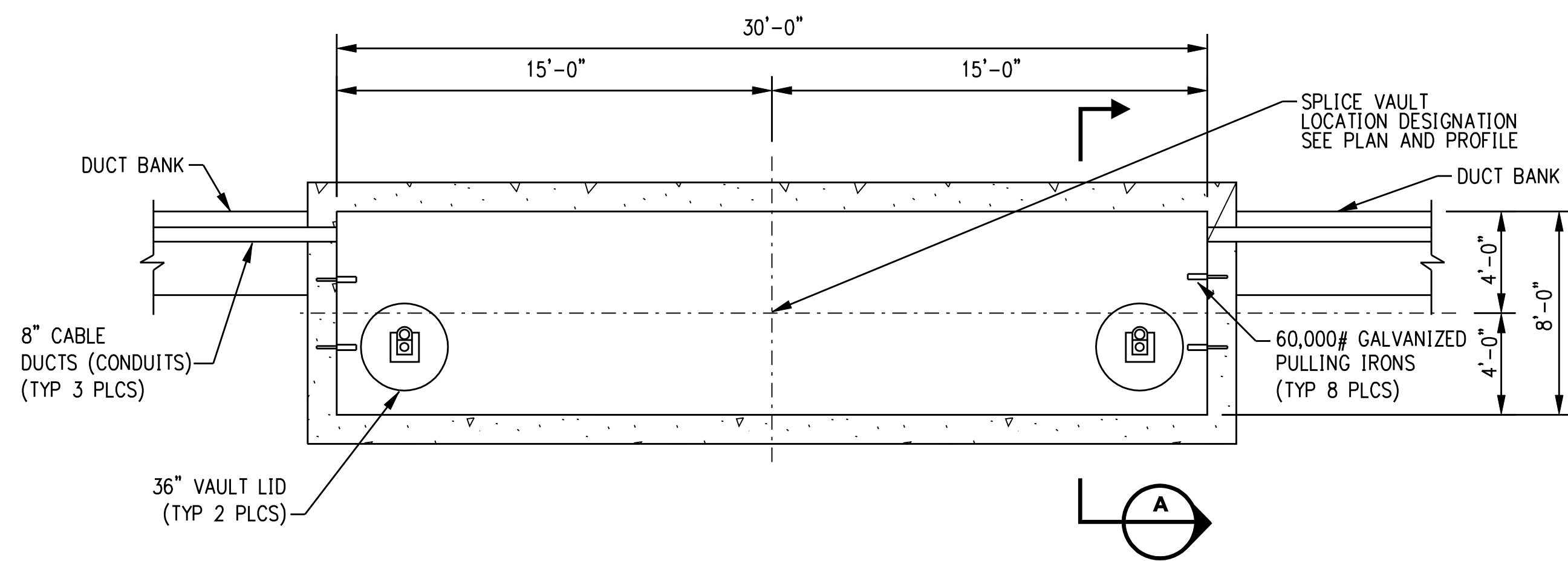
date 8/15/05 detailed L. ROWSE
designed C. COURTRIGHT checked S. NEWLAND

no.	date	revisions	by	chk
1	5/10/07	ISSUED CSC REVISED	CTC	

MF	NO.	DATE	REVISIONS	BY	CHK	APP	APP

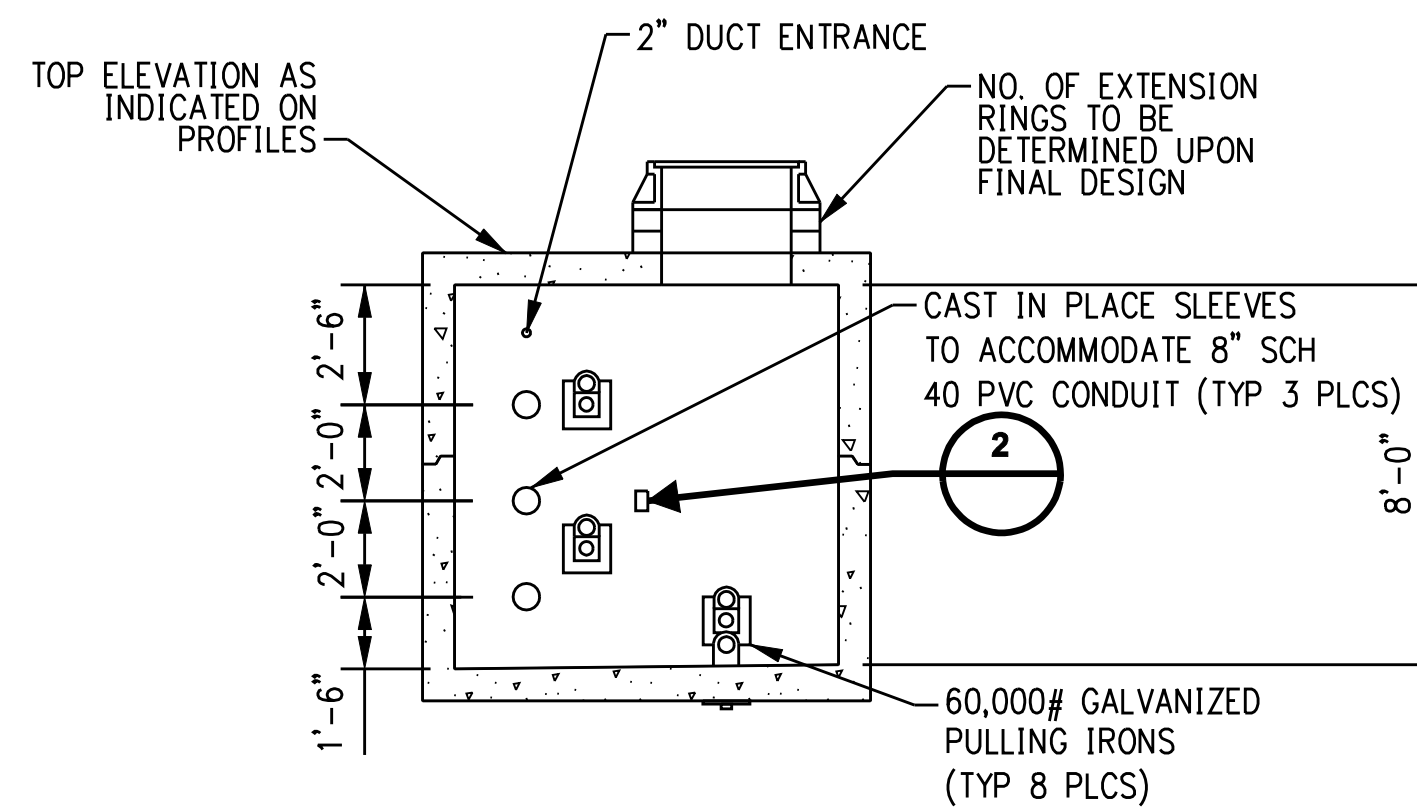
NORTHEAST UTILITIES SERVICE CO.			
FOR THE CONNECTICUT LIGHT & POWER COMPANY			
TITLE MIDDLETOWN-NORWALK 345KV TRANSMISSION PROJECT			
VAULT, GROUNDING AND HANDHOLE DETAILS			
BY SEN-BMCD	CHKD	APP	APP
DATE 8-15-05	DATE	DATE	DATE
SCALE AS NOTED	D	DWG. NO.	01223-45003 PG 001

COPYRIGHT © 2007 BURNS & MCDONNELL ENGINEERING COMPANY, INC.

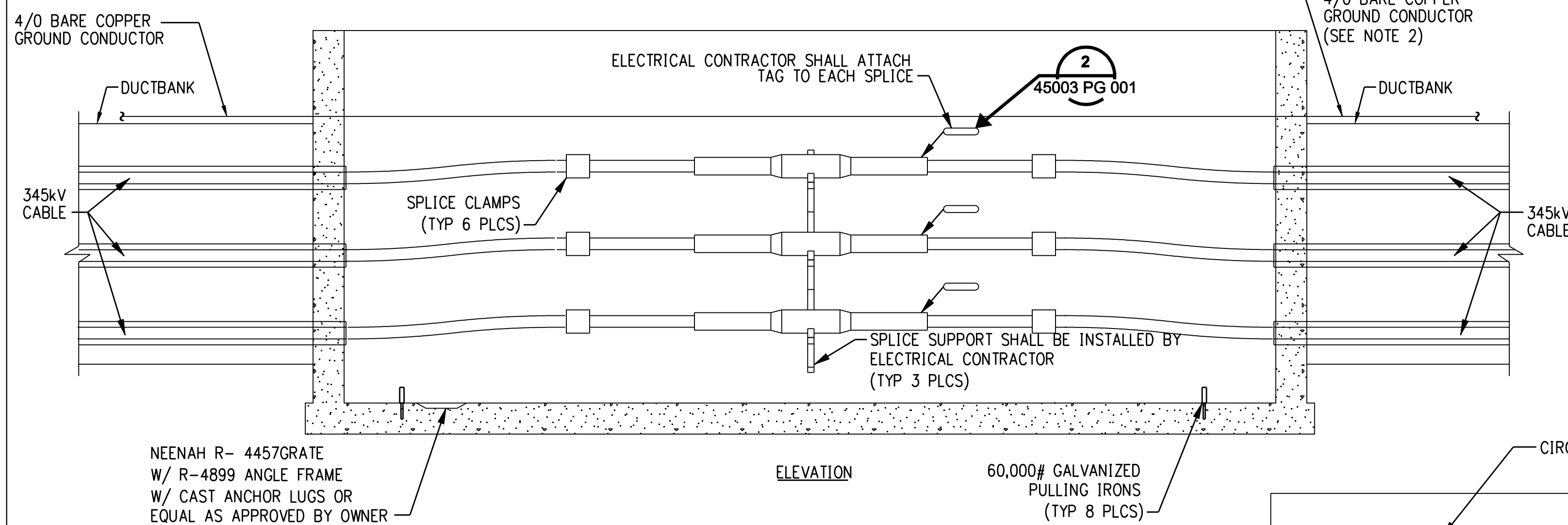


INTERIOR PLAN ELECTRICAL SPLICE VAULT

DETAIL 1
NTS

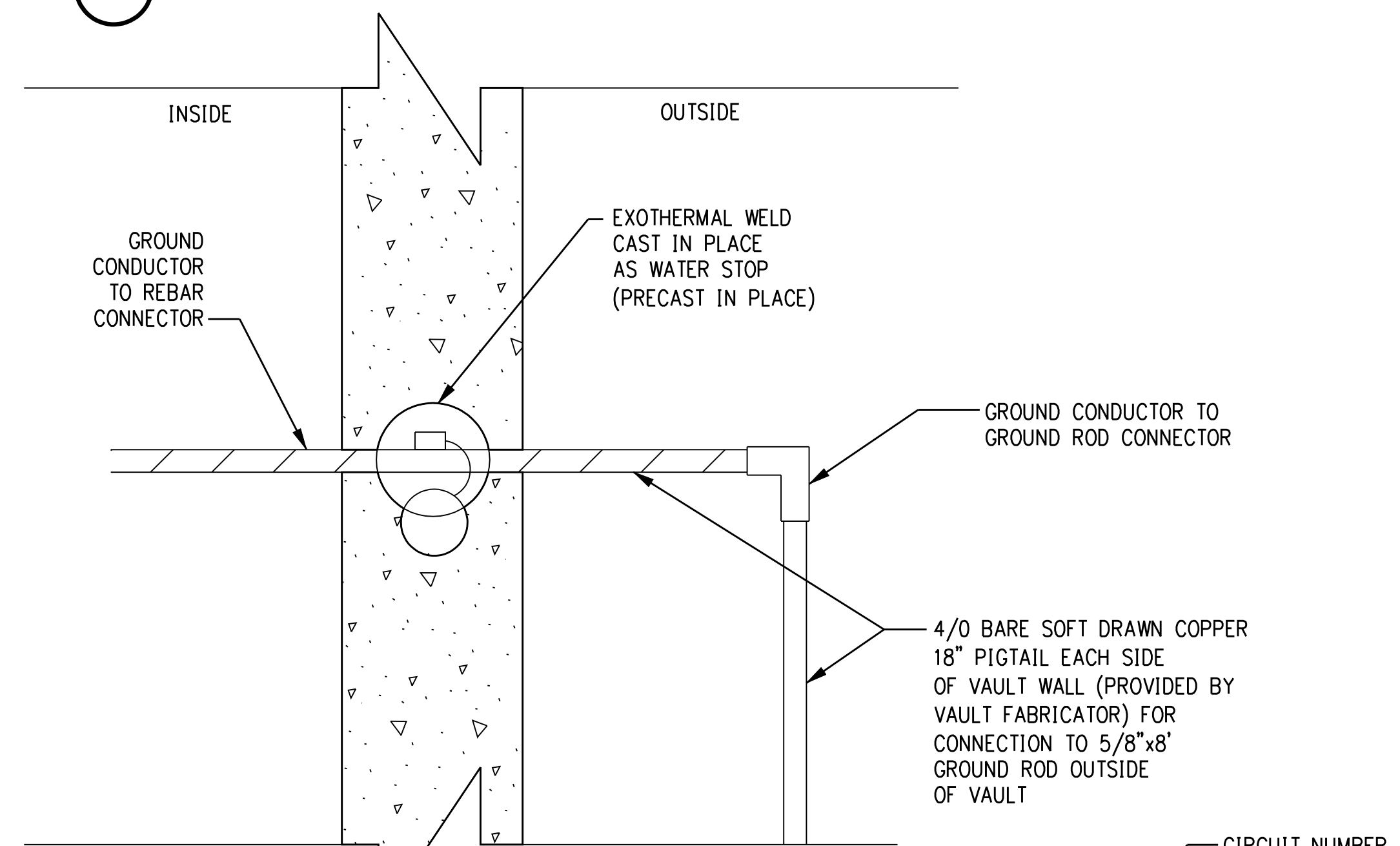


SPLICE VAULT
SECTION A
NTS



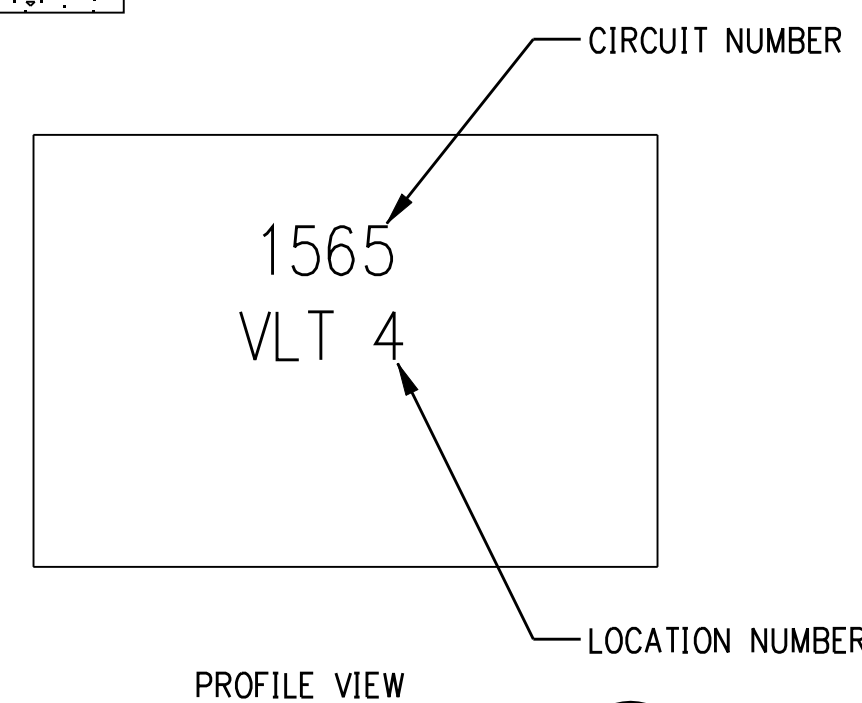
ELEVATION

SPLICE VAULT
DETAIL 3
NTS

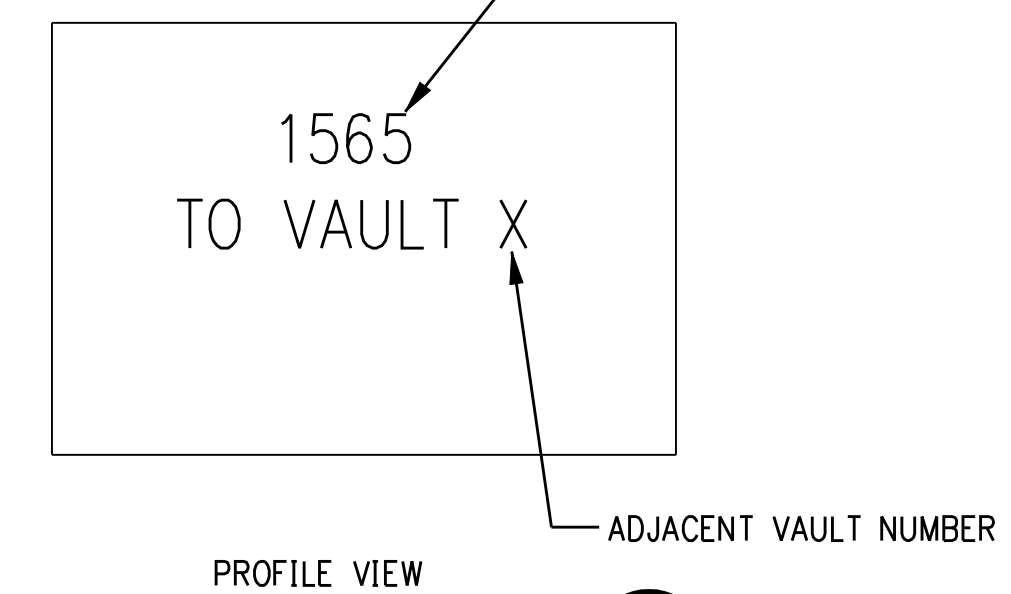


GROUND WIRE DETAIL
PROFILE VIEW

DETAIL 4
NTS



PROFILE VIEW
DETAIL 5
NTS



PROFILE VIEW
DETAIL 2
NTS

CIVIL CONTRACTOR SHALL ATTACH TAG TO EACH ENDWALL DESIGNATING NEXT ADJACENT VAULT IN CIRCUIT

NOTES:

- PASS GROUND CONDUCTOR THROUGH VAULT WALL AND SUPPORT ALONG VAULT WALL.
- BOND GROUNDS FROM EARTHING TO VAULT/ DUCTBANK GROUND.

COPYRIGHT © 2007 BURNS & McDONNELL ENGINEERING COMPANY, INC.

DOCKET No. 272

ISSUED FOR
CONSTRUCTION

no.	date	revisions	by	chk
1	5/10/07	ISSUED CSC REVISED	CTC	



date 8/15/05
designed C. COURTRIGHT
detailed L. ROWSE
checked S. NEWLAND

MF	NO.	DATE	REVISIONS	BY	CHK	APP	APP

NORTHEAST UTILITIES SERVICE CO.

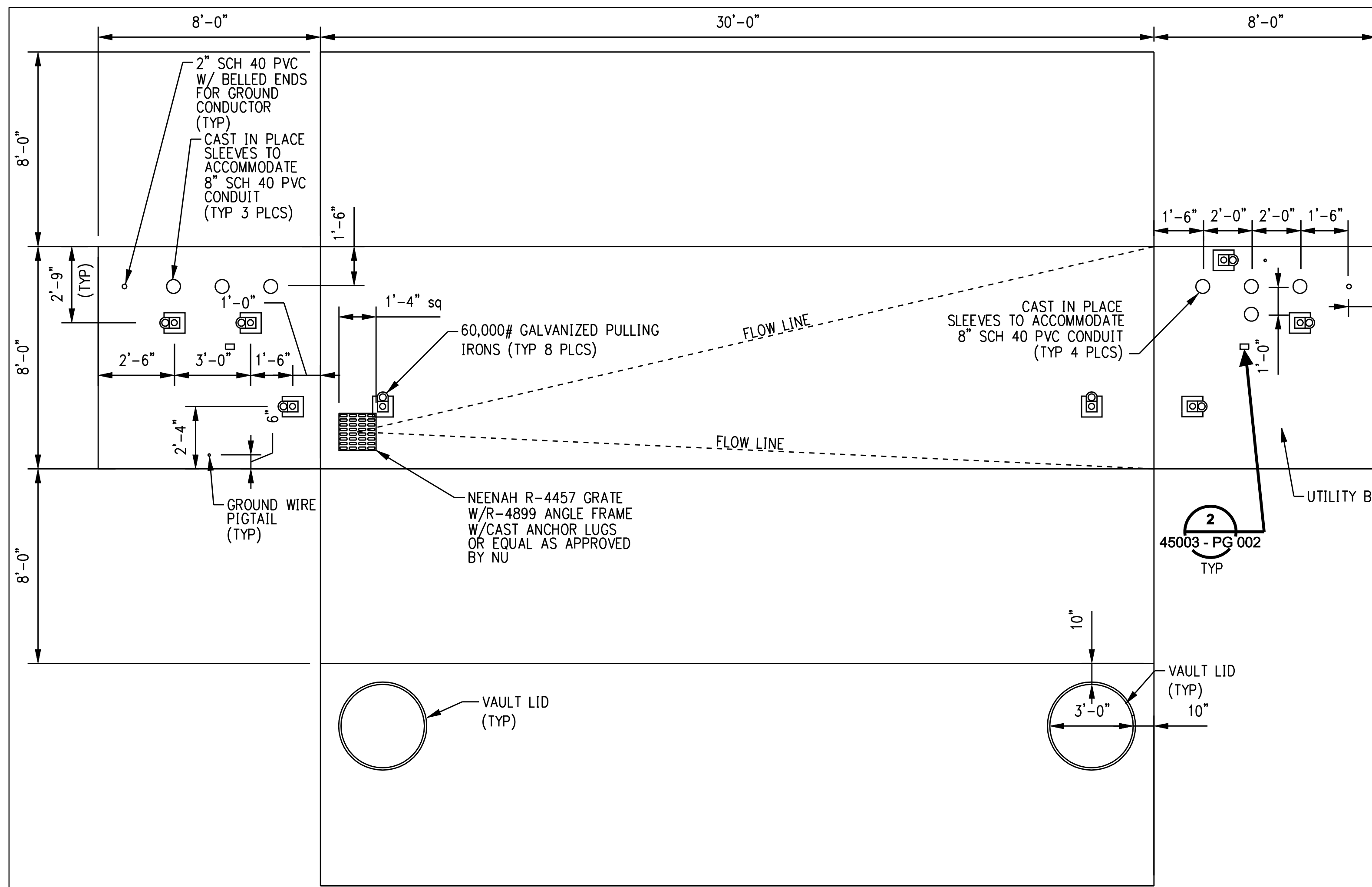
FOR THE CONNECTICUT LIGHT & POWER COMPANY

TITLE MIDDLETOWN-NORWALK 345KV TRANSMISSION PROJECT

VAULT AND GROUNDING DETAILS

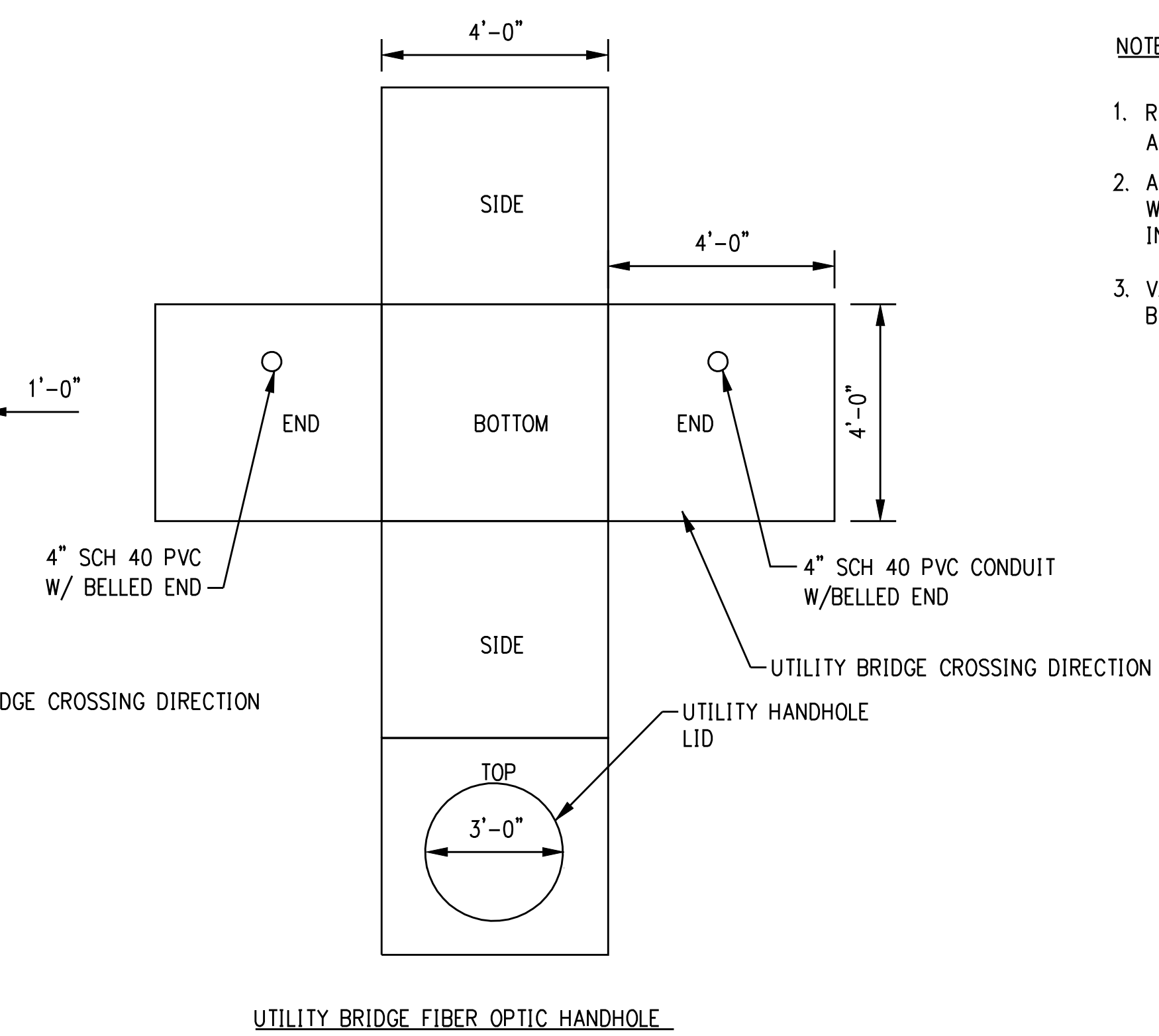
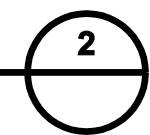
BY SEN-BMCD	CHKD	APP	APP
DATE 8-15-05	DATE	DATE	DATE

SCALE AS NOTED
D
DWG. NO. 01223-45003 PG 002



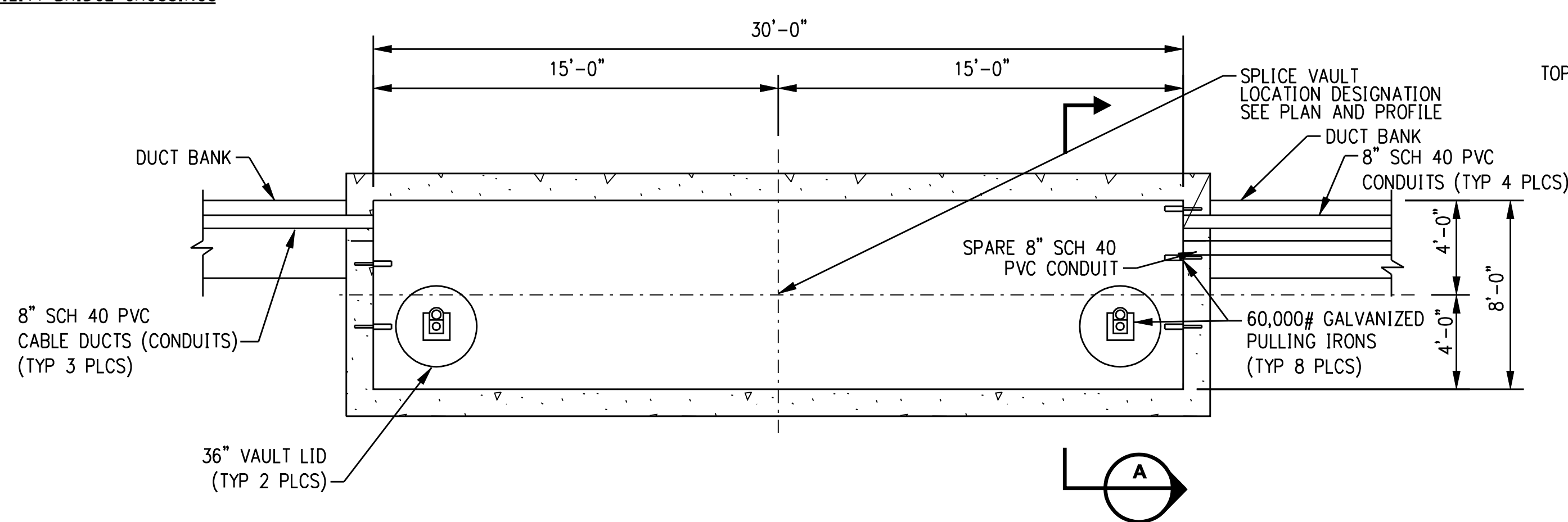
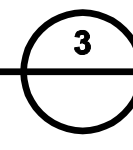
SPlice VAULT DEVELOPMENT PLAN FOR VAULTS ADJACENT TO UTILITY BRIDGE CROSSINGS

DETAIL
NTS



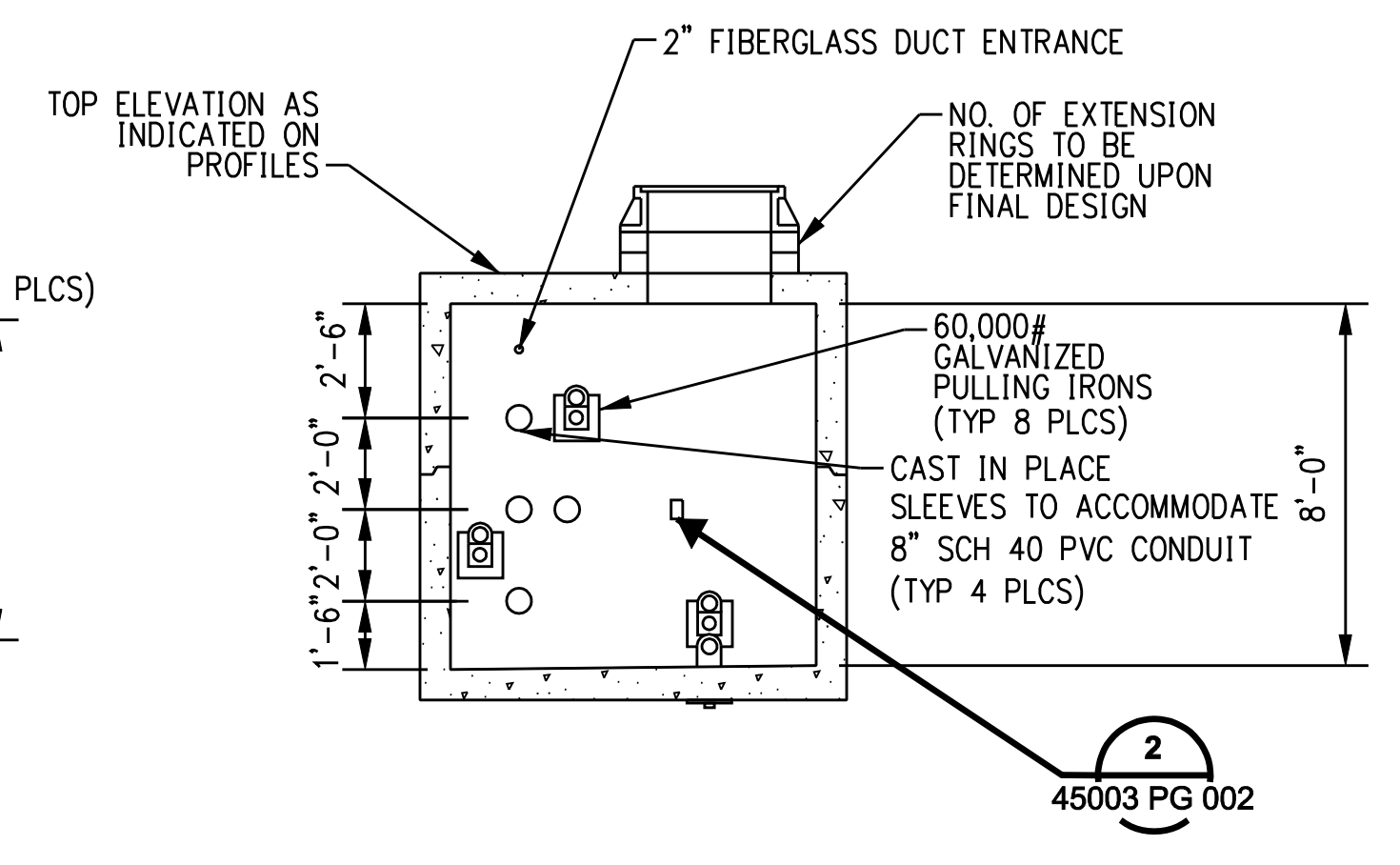
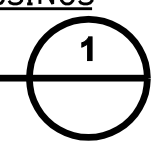
UTILITY BRIDGE FIBER OPTIC HANDHOLE

DETAIL
NTS



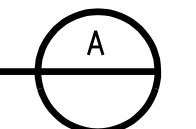
INTERIOR PLAN OF ELECTRICAL SPLICE VAULTS ADJACENT TO UTILITY BRIDGE CROSSINGS

DETAIL
NTS



UTILITY BRIDGE SPLICE VAULT

SECTION
NTS



- NOTES:
1. REBAR WITHIN SPLICE CHAMBER WALLS SHALL NOT FORM A LOOP AROUND ANY 8" CONDUIT OPENING.
 2. ALL UNUSED CONDUITS SHALL BE PLUGGED AND SEALED USING WATERTIGHT DUCT PLUGS AS MANUFACTURED BY JACKMOON USA, INC. OR ACCEPTABLE EQUAL.
 3. VAULT ENDS HAVING SPARE DUCTS ARE ORIENTED TOWARD UTILITY BRIDGE TRENCHLESS CROSSING.

COPYRIGHT © 2007 BURNS & MCDONNELL ENGINEERING COMPANY, INC.

DOCKET No. 272

ISSUED FOR
CONSTRUCTION

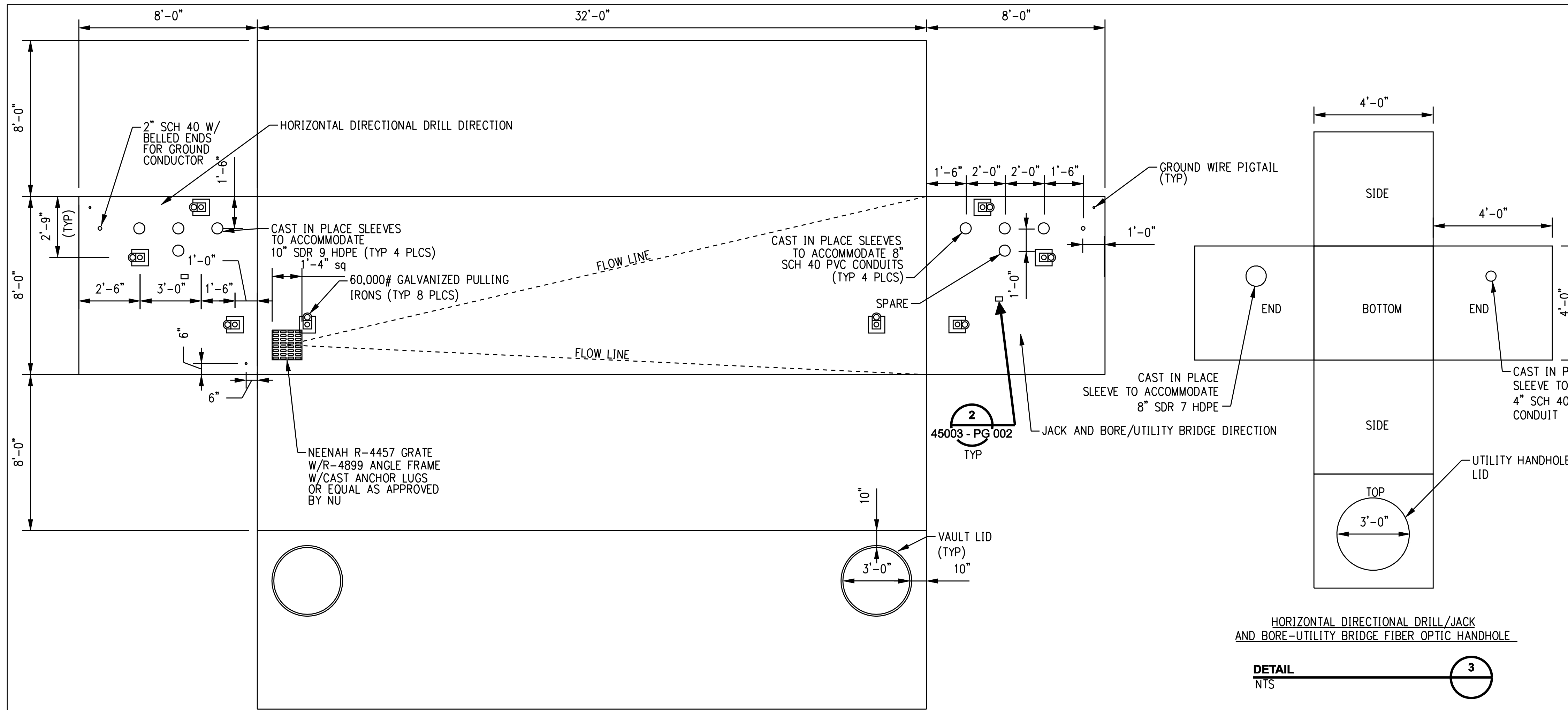


date 05/05/06 detailed L. ROWSE
designed C. COURTRIGHT checked S. NEWLAND

no.	date	revisions	by	chk
1	5/10/07	ISSUED CSC REVISED	CTC	

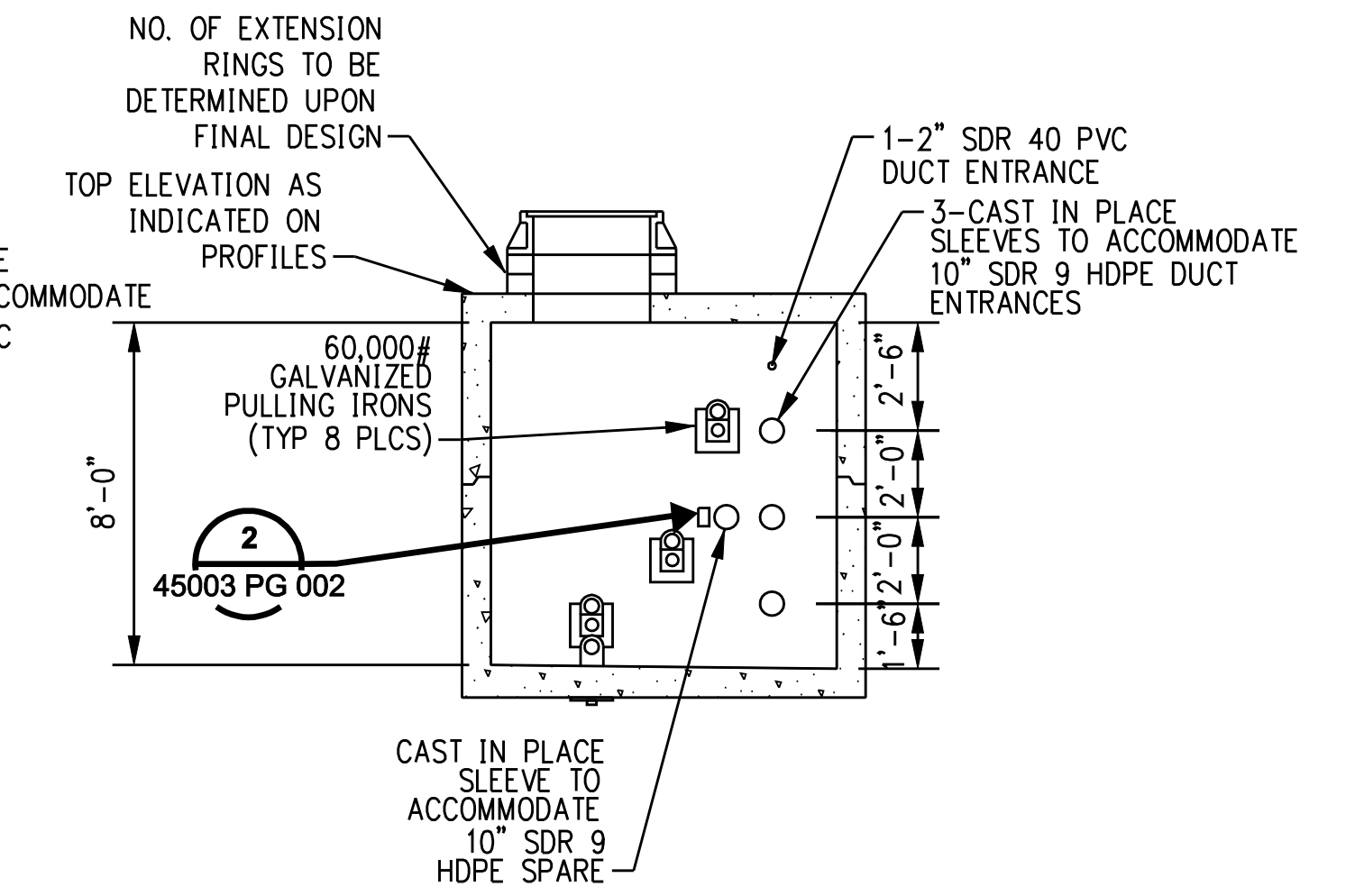
MF	NO.	DATE	REVISIONS	BY	CHK	APP	APP

NORTHEAST UTILITIES SERVICE CO.			
FOR THE CONNECTICUT LIGHT & POWER COMPANY			
TITLE MIDDLETOWN-NORWALK 345KV TRANSMISSION PROJECT			
UTILITY BRIDGE SPLICE VAULT DETAILS			
BY SEN-BMCD	CHKD	APP	APP
DATE 5-05-06	DATE	DATE	DATE
SCALE AS NOTED	D	DWG. NO.	01223-45003 PG 003



SPLICE VAULT DEVELOPMENT PLAN FOR VAULTS ADJACENT TO HORIZONTAL DIRECTIONAL DRILL/JACK AND BORE-UTILITY BRIDGE CROSSINGS

- NOTES:
1. REBAR WITHIN SPLICE CHAMBER WALLS SHALL NOT FORM A LOOP AROUND ANY 8" AND 10" CONDUIT OPENING.
 2. ALL UNUSED CONDUITS SHALL BE PLUGGED AND SEALED USING WATERTIGHT DUCT PLUGS AS MANUFACTURED BY JACKMOON USA, INC. OR ACCEPTABLE EQUAL.
 3. VAULT ENDS HAVING SPARE DUCTS ARE ORIENTED TOWARD TRENCHLESS CROSSINGS. (JACK AND BORES, UTILITY BRIDGES, OR HORIZONTAL DIRECTIONAL DRILLS)



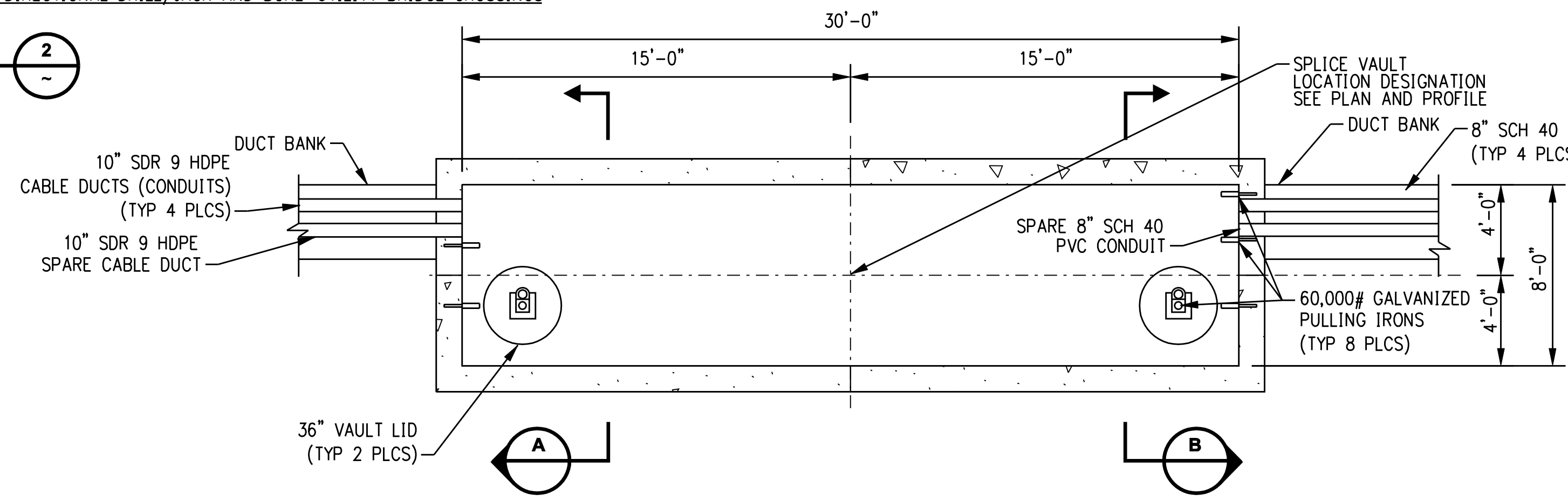
HORIZONTAL DIRECTIONAL DRILL/JACK AND BORE-UTILITY BRIDGE SPLICE VAULT

HORIZONTAL DIRECTIONAL DRILL/JACK AND BORE-UTILITY BRIDGE FIBER OPTIC HANDHOLE

DETAIL 3 NTS

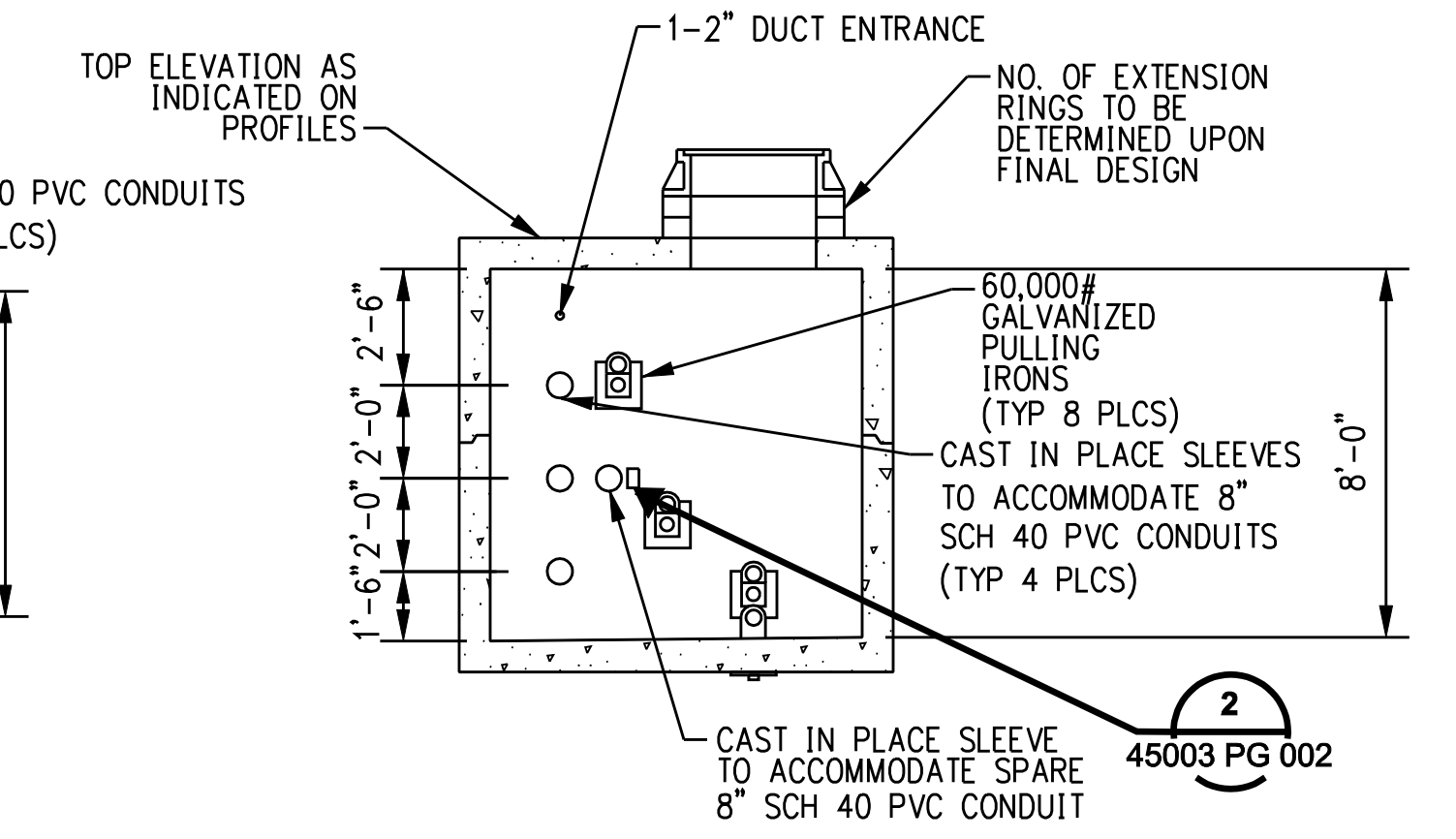
SECTION A NTS 45003 PG 004

DETAIL 2 NTS



INTERIOR PLAN FOR ELECTRICAL SPLICE VAULTS ADJACENT TO HORIZONTAL DIRECTIONAL DRILL/JACK AND BORE-UTILITY BRIDGE CROSSINGS

DETAIL 1 NTS



HORIZONTAL DIRECTIONAL DRILL/JACK AND BORE-UTILITY BRIDGE SPLICE VAULT

SECTION B NTS 45003 PG 004

COPYRIGHT © 2007 BURNS & McDONNELL ENGINEERING COMPANY, INC.

DOCKET No. 272

ISSUED FOR CONSTRUCTION

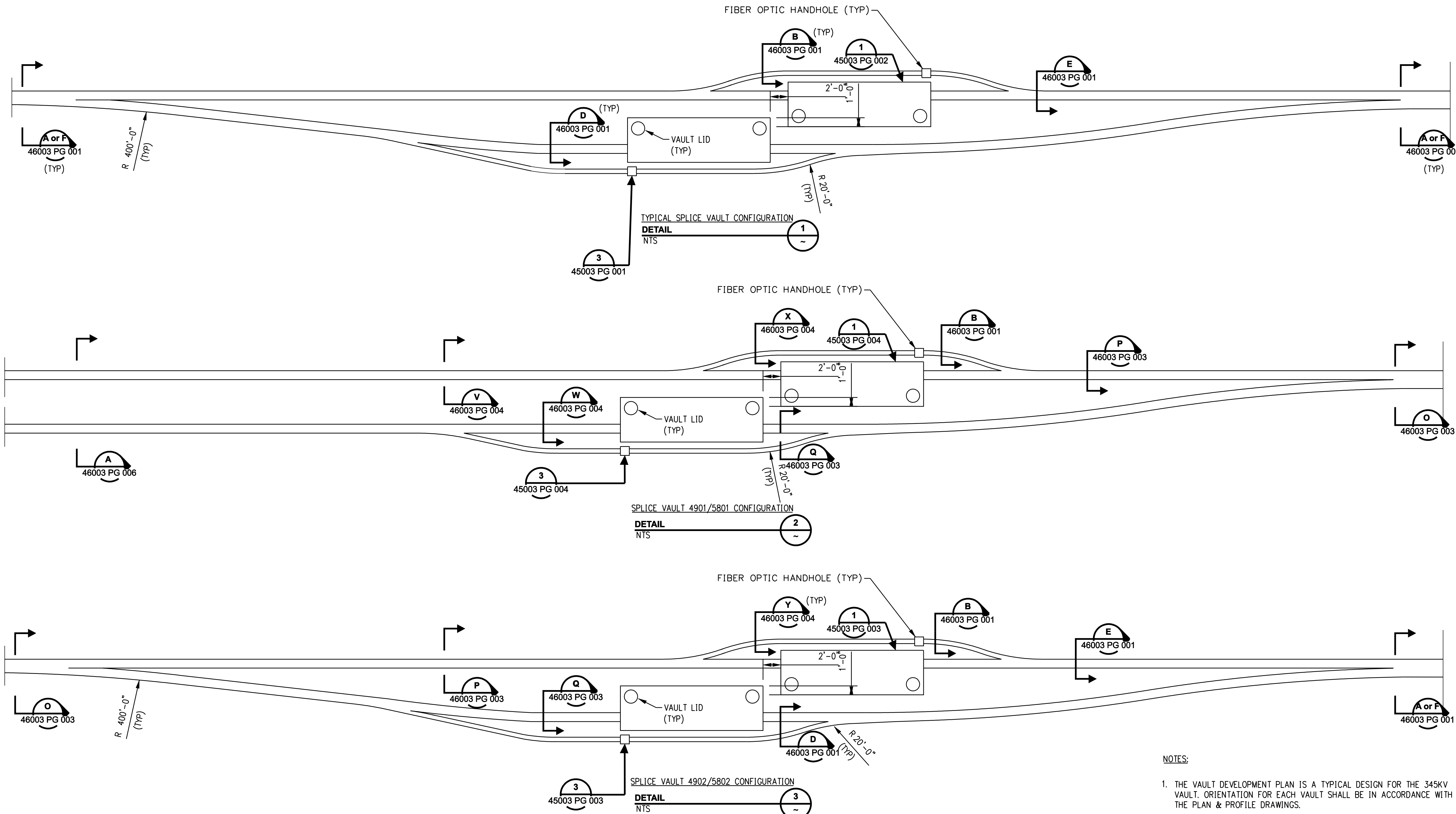


date 05/05/06 detailed L. ROWSE
 designed C. COURTRIGHT checked S. NEWLAND

no.	date	revisions	by	chk
1	5/10/07	ISSUED CSC REVISED	CTC	

MF	NO.	DATE	REVISIONS	BY	CHK	APP	APP

NORTHEAST UTILITIES SERVICE CO.			
FOR THE CONNECTICUT LIGHT & POWER COMPANY			
TITLE MIDDLETOWN-NORWALK 345KV TRANSMISSION PROJECT			
HORIZONTAL DIRECTIONAL DRILL SPLICE VAULT DETAILS			
BY SEN-BMCD	CHKD	APP	APP
DATE 5-05-06	DATE	DATE	DATE
SCALE AS NOTED	D	DWG. NO.	01223-45003 PG 004




NOTES:
 1. THE VAULT DEVELOPMENT PLAN IS A TYPICAL DESIGN FOR THE 345KV VAULT. ORIENTATION FOR EACH VAULT SHALL BE IN ACCORDANCE WITH THE PLAN & PROFILE DRAWINGS.

COPYRIGHT © 2007 BURNS & MCDONNELL ENGINEERING COMPANY, INC.

DOCKET No. 272

ISSUED FOR
CONSTRUCTION

no.	date	revisions	by	chk
1	5/10/07	ISSUED CSC REVISED	CTC	

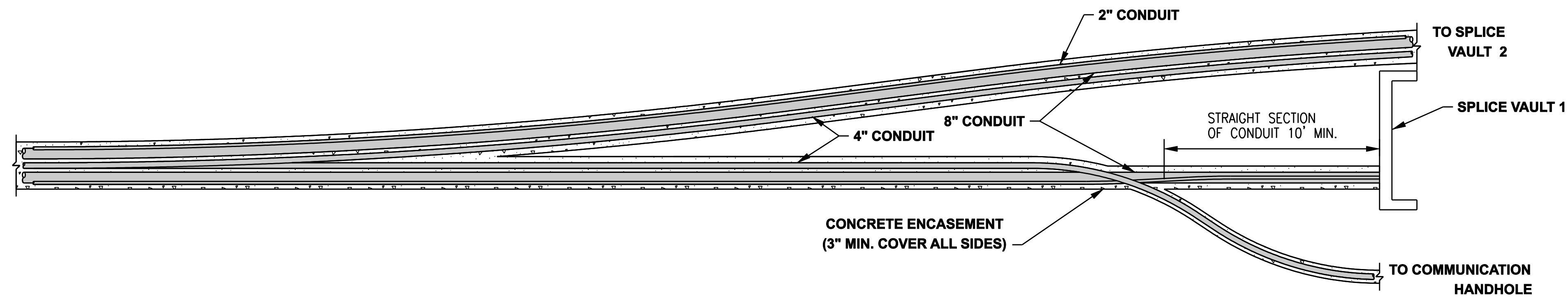


**Burns &
McDonnell**
SINCE 1898

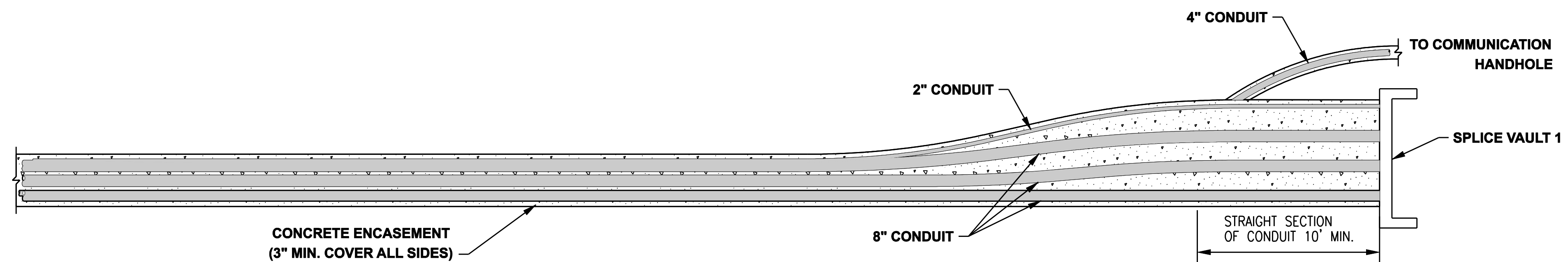
date	06/15/06	detailed	L. ROWSE
designed	C. COURTRIGHT	checked	S. NEWLAND

MF	NO.	DATE	REVISIONS	BY	CHK	APP	APP

NORTHEAST UTILITIES SERVICE CO.			
FOR THE CONNECTICUT LIGHT & POWER COMPANY			
TITLE MIDDLETOWN-NORWALK 345KV TRANSMISSION PROJECT			
CROSSING SPLICE VAULT DETAILS			
BY	SEN-BMCD	CHKD	APP
DATE	6-15-06	DATE	DATE
SCALE	AS NOTED	DWG. NO.	01223-45003 PG 005
D			



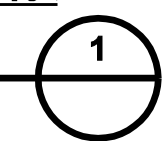
PLAN



PROFILE

DUCT BANK CONDUIT TRANSITION


DETAIL



DOCKET No. 272

ISSUED FOR
 CONSTRUCTION

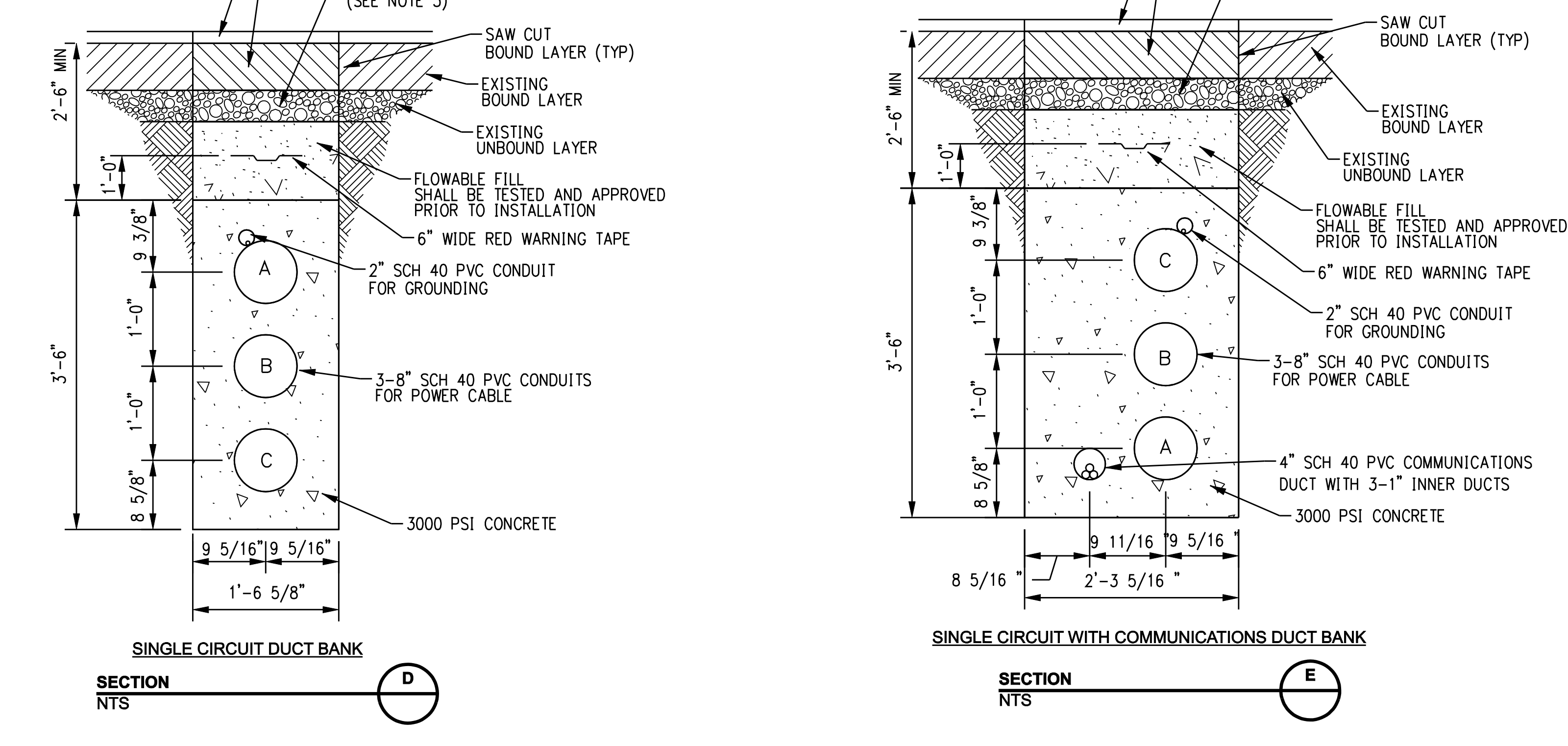
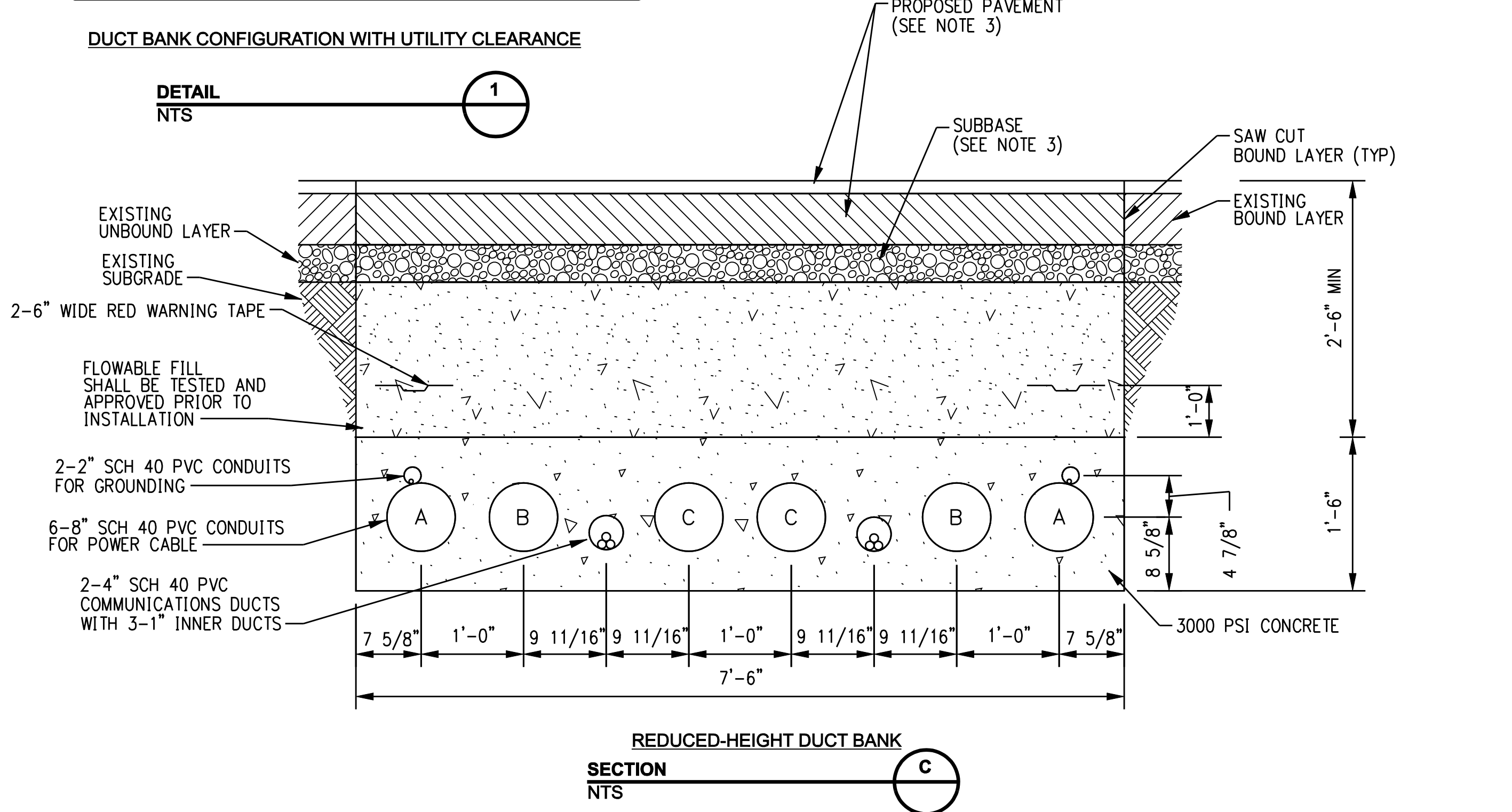
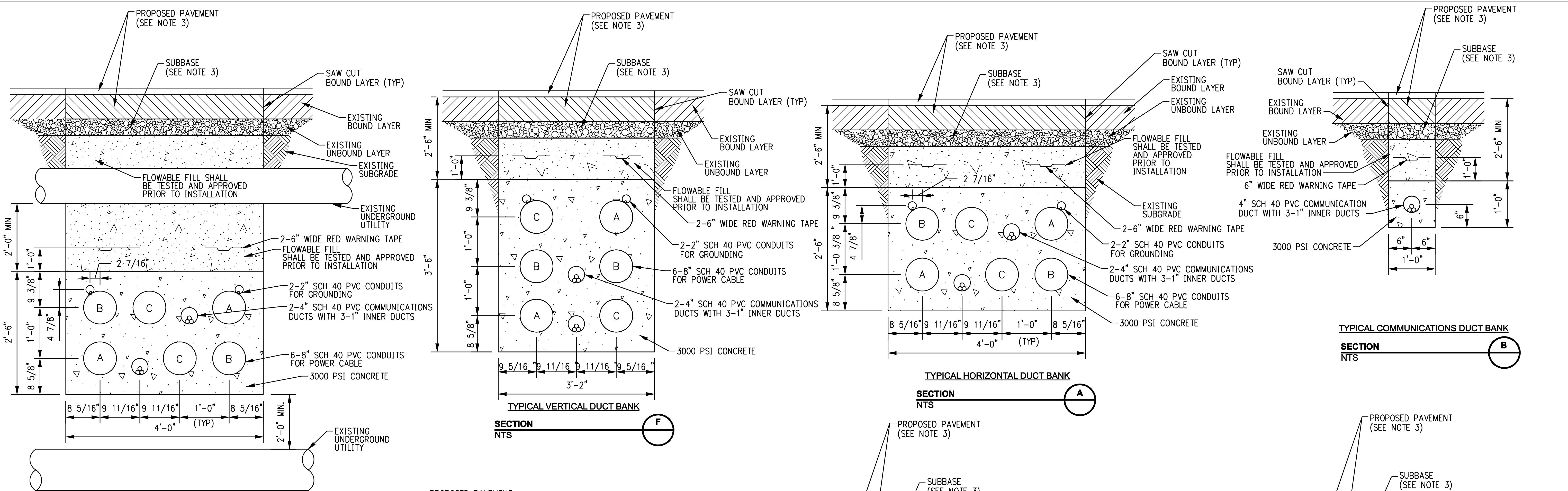
no.	date	revisions	by	chk
1	5/10/07	ISSUED CSC REVISED	CTC	



date 07/05/06
 detailed L. ROWSE
 designed C. COURTRIGHT
 checked S. NEWLAND

MF	NO.	DATE	REVISIONS	BY	CHK	APP	APP

NORTHEAST UTILITIES SERVICE CO.			
FOR THE CONNECTICUT LIGHT & POWER COMPANY			
TITLE MIDDLETOWN-NORWALK 345KV TRANSMISSION PROJECT			
CONDUIT TRANSITIONS			
BY SEN-BMCD	CHKD	APP	APP
DATE 7-05-06	DATE	DATE	DATE
SCALE AS NOTED		DWG. NO.	
	D	01223-45003	PG 006



- GENERAL NOTES:
- STANDARD TRENCH WITH PERMANENT PAVEMENT RESTORATION IN STATE HIGHWAY SHOWN. PAVEMENT RESTORATION REQUIREMENTS SHALL VARY DEPENDENT ON SPECIFIC EXISTING PAVEMENT CROSS SECTIONS AND MATERIALS.
 - OMITTED
 - REFERENCE RESTORATION DRAWINGS FOR PROPOSED PAVEMENT SECTIONS.

DOCKET No. 272

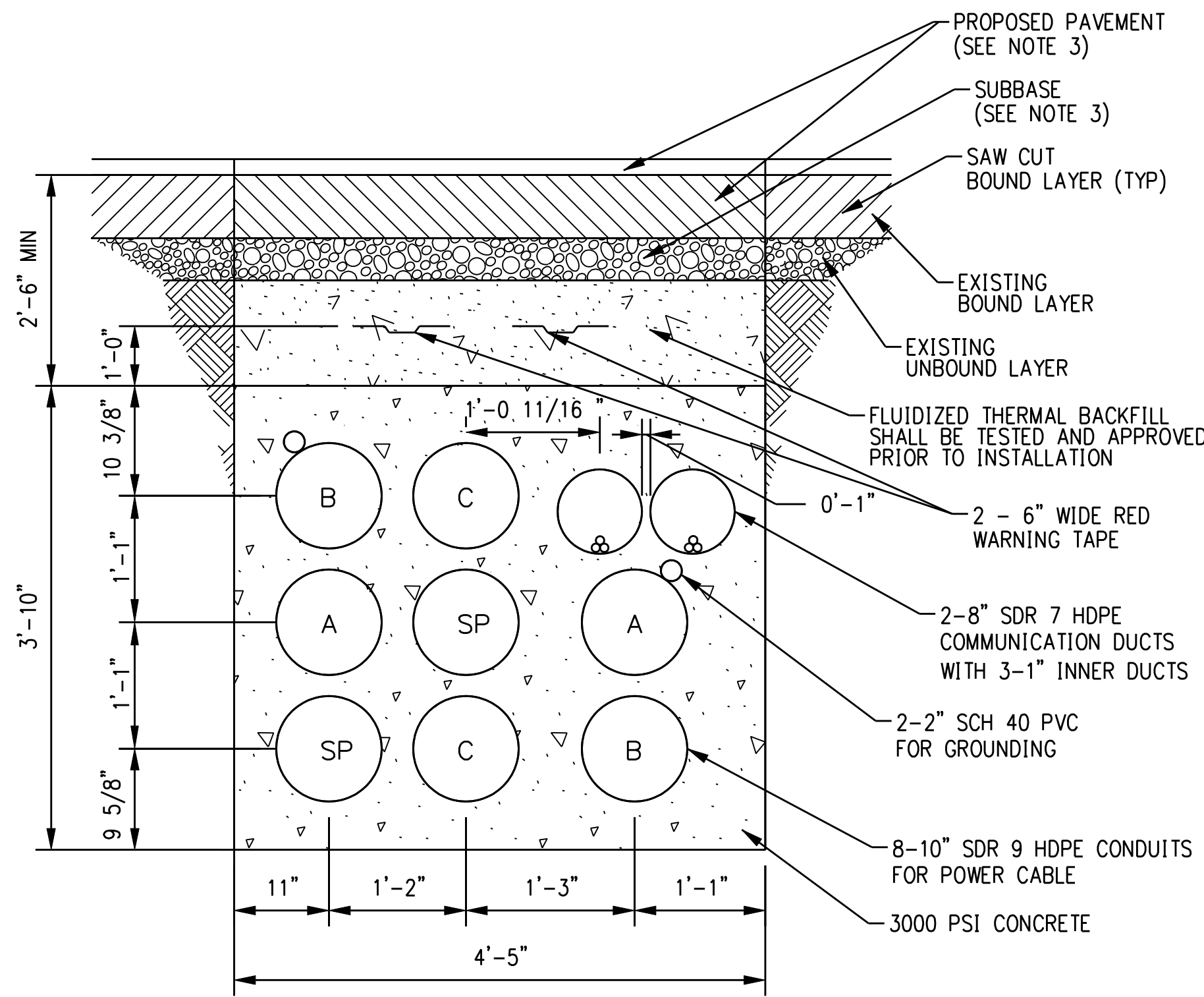
ISSUED FOR
CONSTRUCTION



date 10/11/05 detailed L. ROWSE
designed BL COMPANIES checked S. NEWLAND

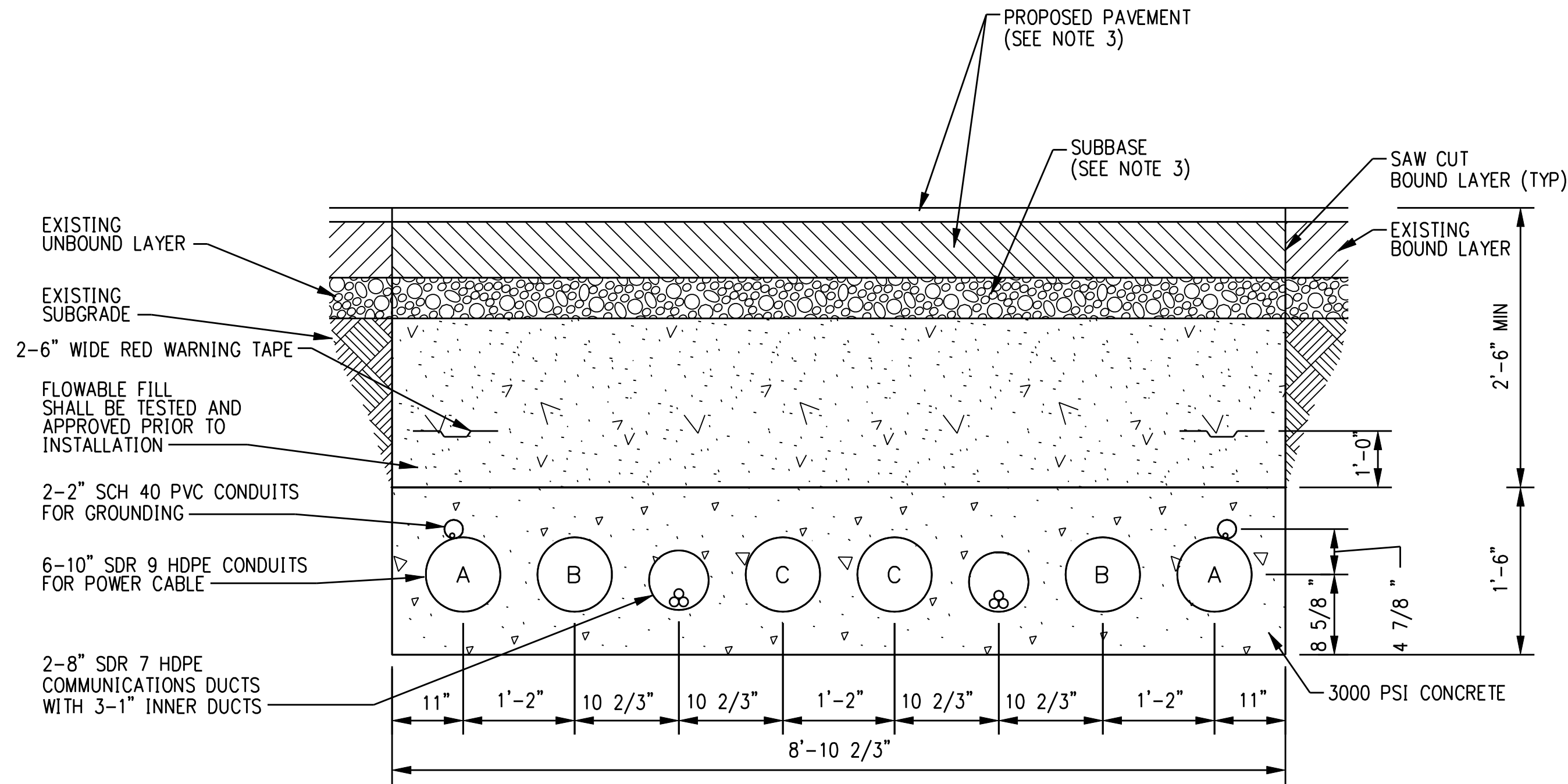
no.		date		revisions		by		chk																													
1	5/10/07	ISSUED CSC REVISED				CTC																															
<table border="1"> <tr> <td colspan="4">NORTHEAST UTILITIES SERVICE CO.</td> </tr> <tr> <td colspan="4">FOR THE CONNECTICUT LIGHT & POWER COMPANY</td> </tr> <tr> <td colspan="4">TITLE MIDDLETOWN-NORWALK 345KV TRANSMISSION PROJECT</td> </tr> <tr> <td colspan="4">TYPICAL DUCT BANK DETAILS</td> </tr> <tr> <td>BY SEN-BMCD</td> <td>CHKD</td> <td>APP</td> <td>APP</td> </tr> <tr> <td>DATE 10-11-05</td> <td>DATE</td> <td>DATE</td> <td>DATE</td> </tr> <tr> <td>SCALE AS NOTED</td> <td colspan="2">D</td> <td>DWG. NO. 01223-46003 PG 001</td> </tr> </table>										NORTHEAST UTILITIES SERVICE CO.				FOR THE CONNECTICUT LIGHT & POWER COMPANY				TITLE MIDDLETOWN-NORWALK 345KV TRANSMISSION PROJECT				TYPICAL DUCT BANK DETAILS				BY SEN-BMCD	CHKD	APP	APP	DATE 10-11-05	DATE	DATE	DATE	SCALE AS NOTED	D		DWG. NO. 01223-46003 PG 001
NORTHEAST UTILITIES SERVICE CO.																																					
FOR THE CONNECTICUT LIGHT & POWER COMPANY																																					
TITLE MIDDLETOWN-NORWALK 345KV TRANSMISSION PROJECT																																					
TYPICAL DUCT BANK DETAILS																																					
BY SEN-BMCD	CHKD	APP	APP																																		
DATE 10-11-05	DATE	DATE	DATE																																		
SCALE AS NOTED	D		DWG. NO. 01223-46003 PG 001																																		

COPYRIGHT © 2007 BURNS & MCDONNELL ENGINEERING COMPANY, INC.



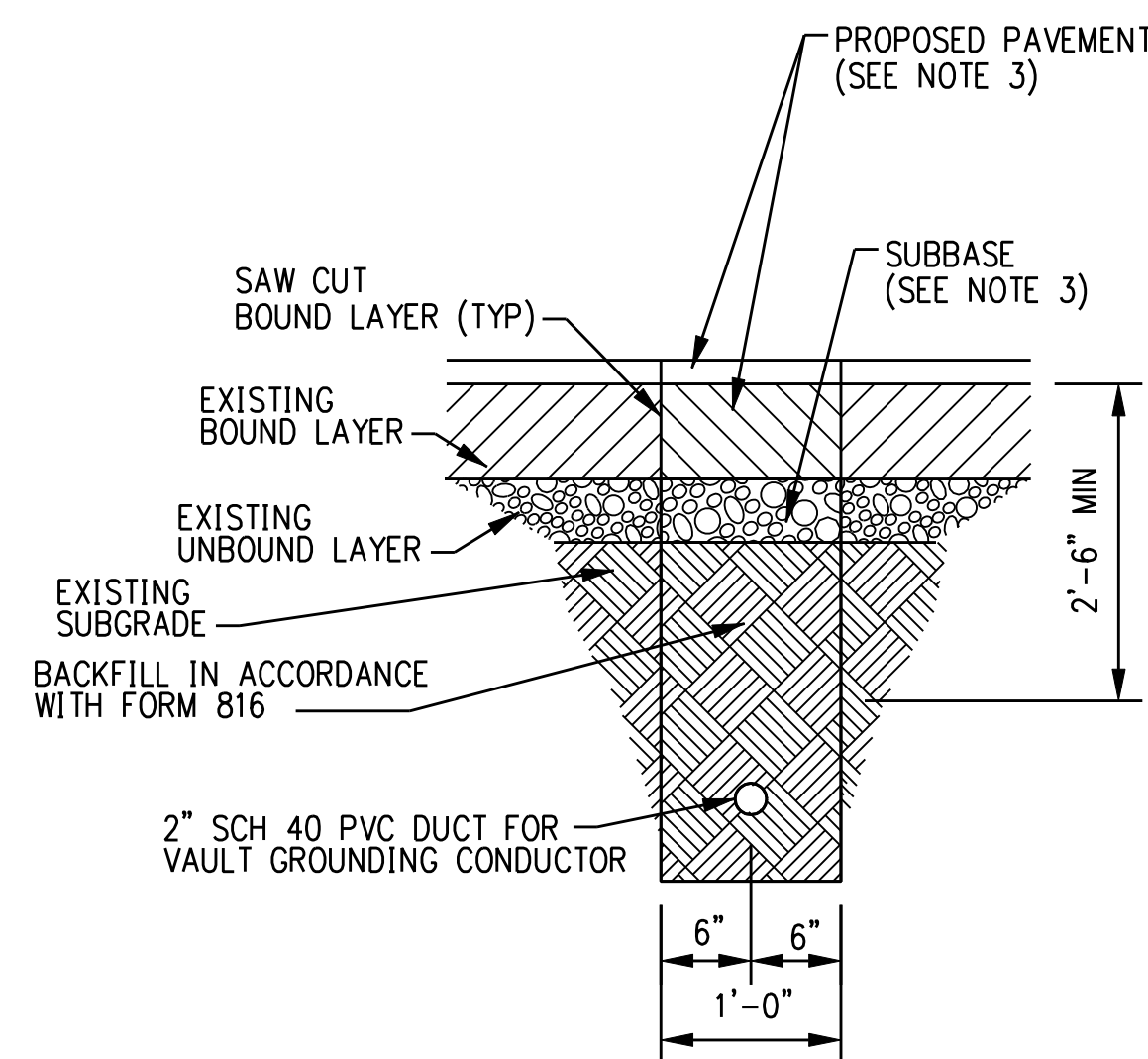
TYPICAL HORIZONTAL DIRECTIONAL DRILL DUCT BANK

SECTION Y
NTS



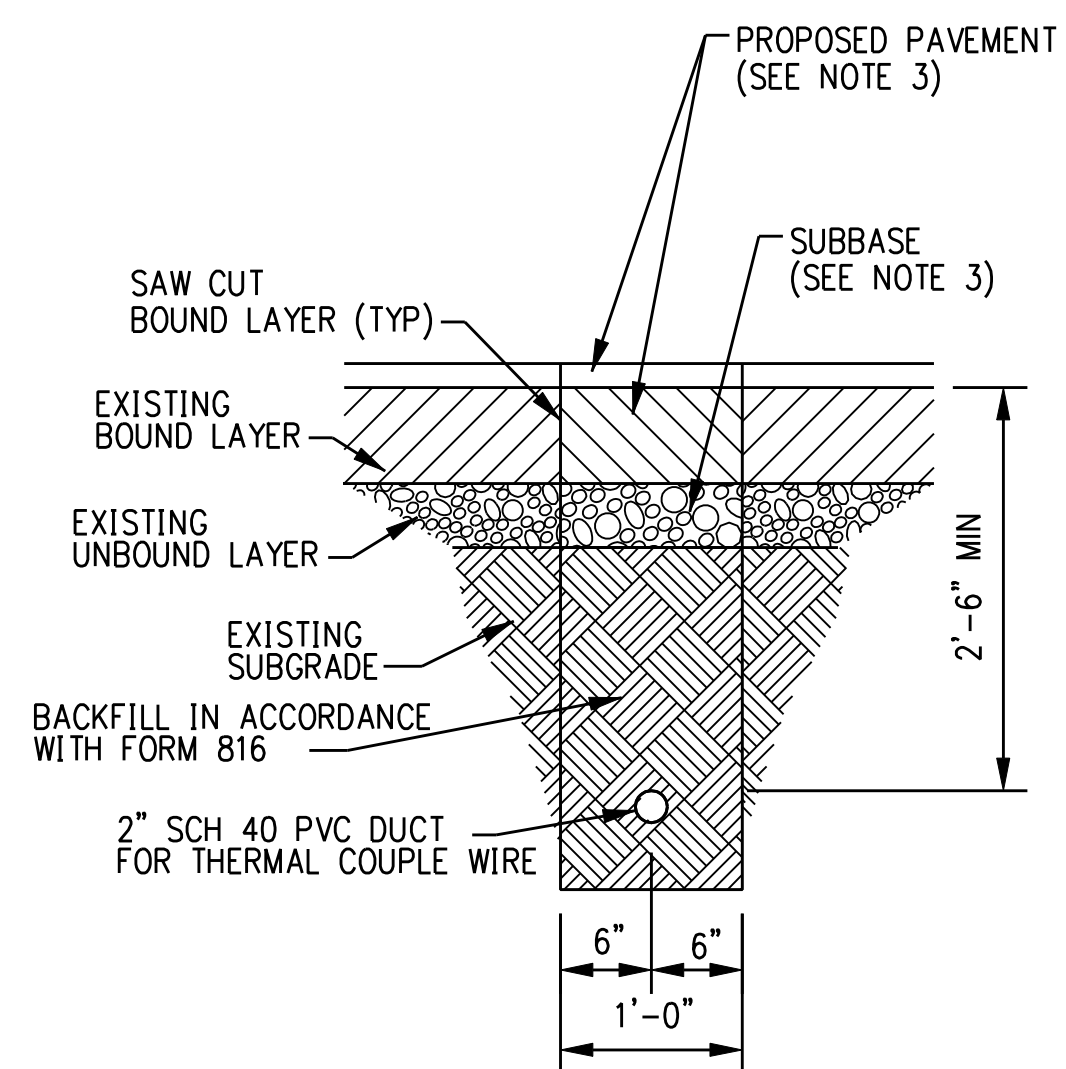
REDUCED-HEIGHT HORIZONTAL DIRECTIONAL DRILL DUCT BANK

SECTION Z
NTS



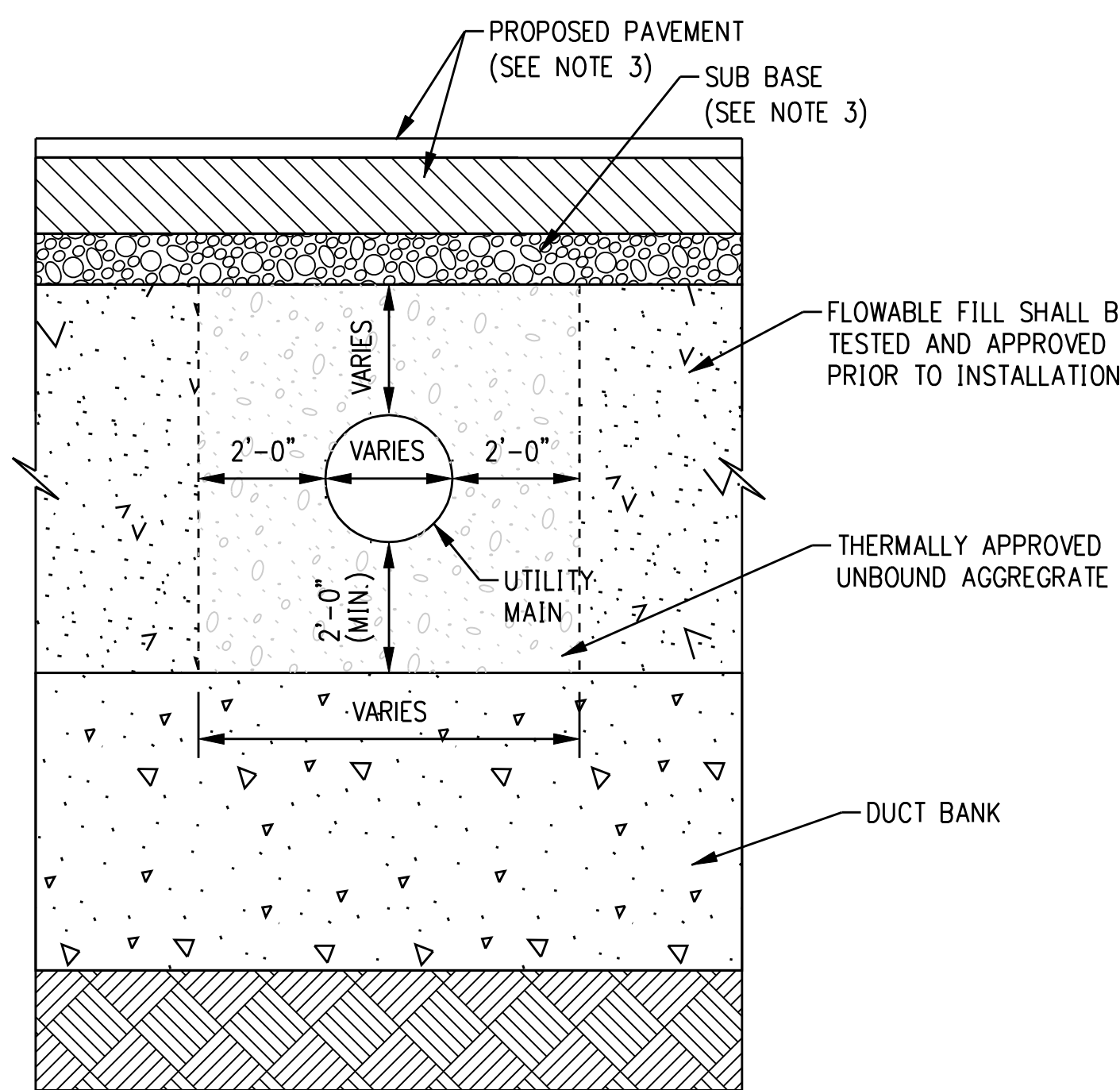
TYPICAL GROUNDING DUCT BANK

SECTION AA
NTS



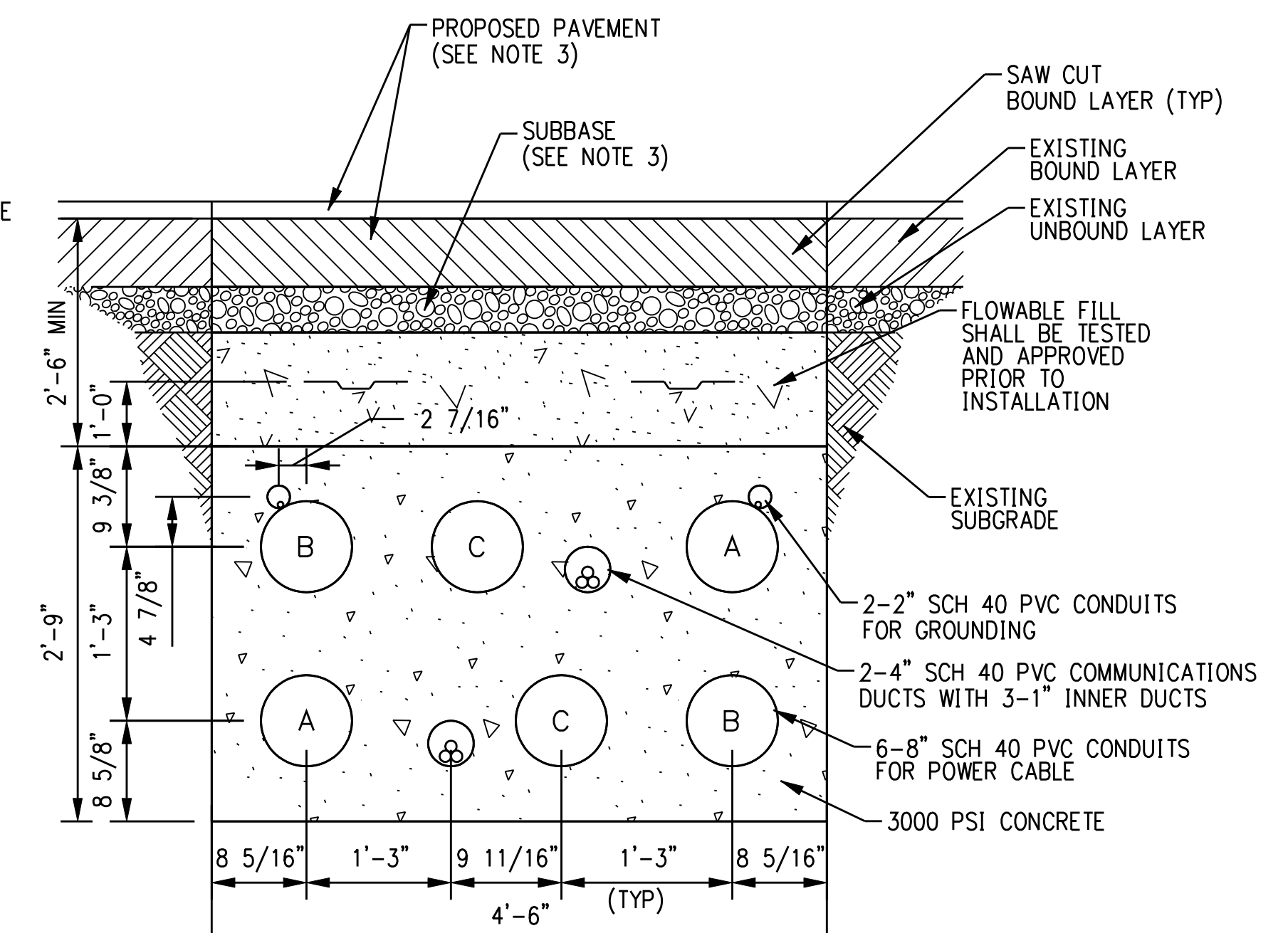
TYPICAL THERMAL COUPLE WIRE DUCT BANK

SECTION BB
NTS



TYPICAL GAS UTILITY CROSSING

SECTION M
NTS



15" PHASE-SPACING DUCT BANK

SECTION N
NTS

GENERAL NOTES:

- STANDARD TRENCH WITH PERMANENT PAVEMENT RESTORATION IN STATE HIGHWAY SHOWN. PAVEMENT RESTORATION REQUIREMENTS SHALL VARY DEPENDENT ON SPECIFIC EXISTING PAVEMENT CROSS SECTIONS AND MATERIALS.
- OMITTED
- REFERENCE RESTORATION DRAWINGS FOR PROPOSED PAVEMENT SECTIONS.

DOCKET No. 272

ISSUED FOR
CONSTRUCTION



date 4/15/06
designed C. COURTRIGHT
detailed L. ROWSE
checked S. NEWLAND

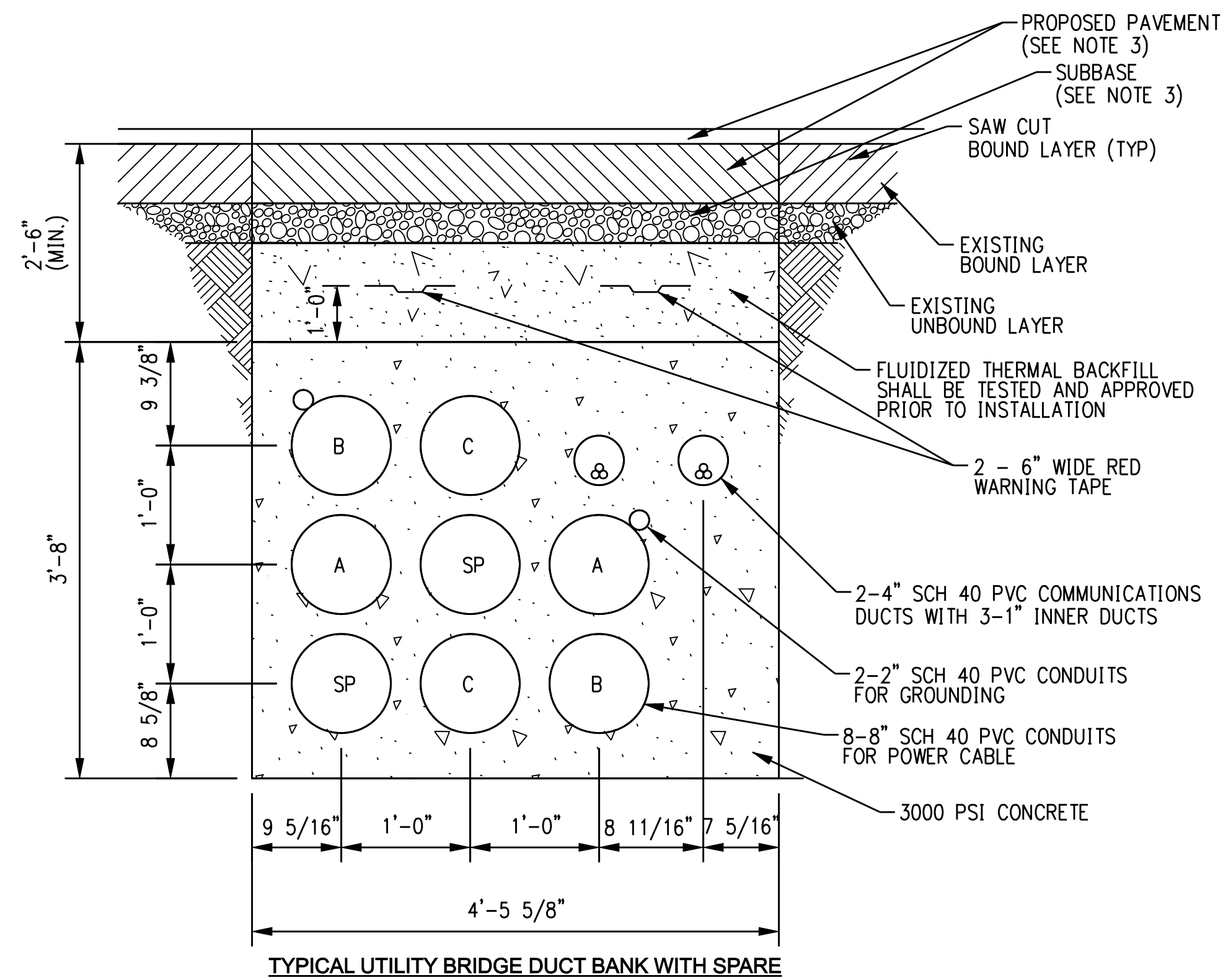
no.	date	revisions	by	chk
1	5/10/07	ISSUED CSC REVISED	CTC	

MF	NO.	DATE	REVISIONS	BY	CHK	APP	APP

NORTHEAST UTILITIES SERVICE CO.

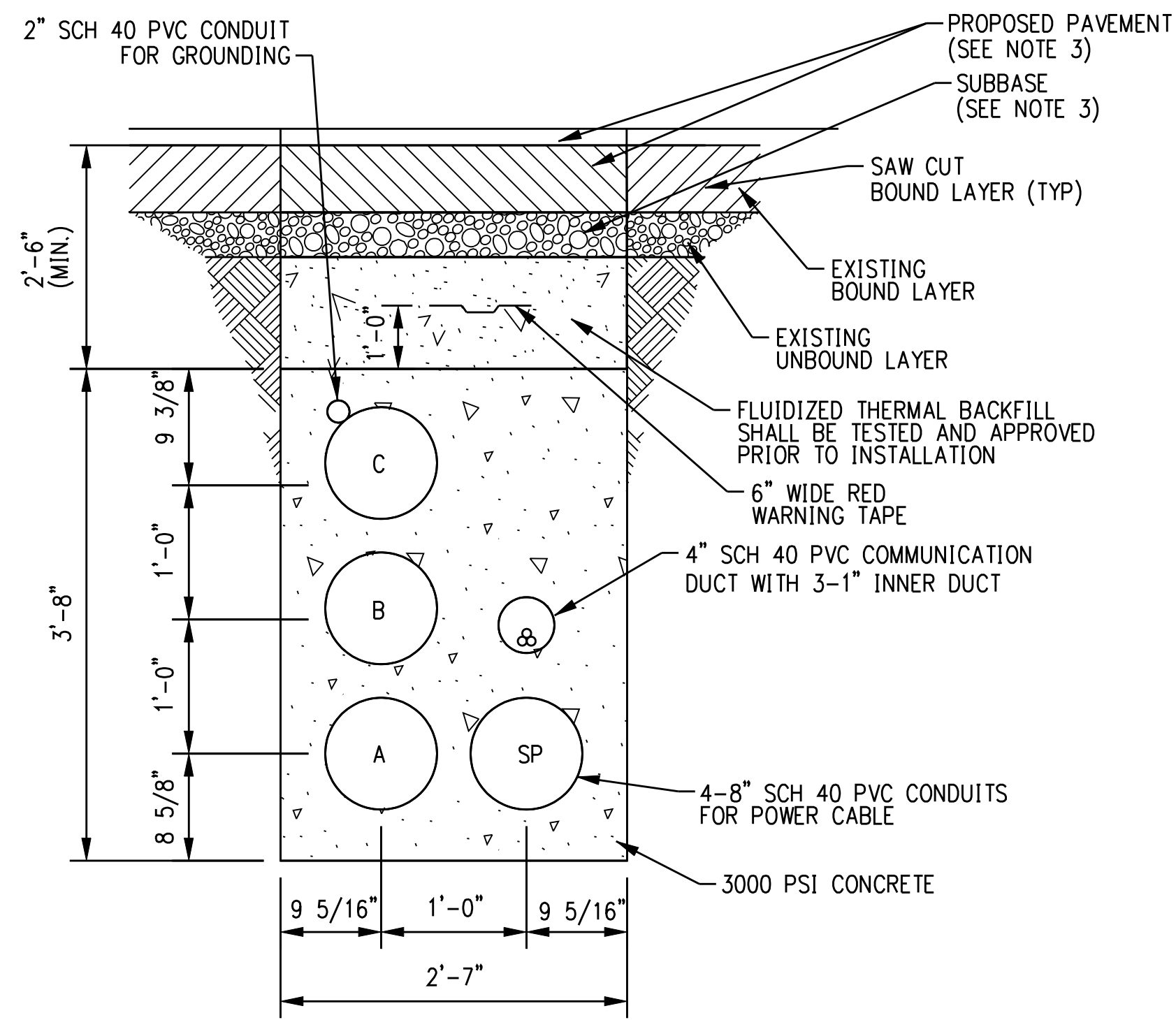
FOR THE CONNECTICUT LIGHT & POWER COMPANY
TITLE MIDDLETOWN-NORWALK 345KV TRANSMISSION PROJECT
UTILITY BRIDGE DUCT BANK DETAILS AND UTILITY CROSSING DETAIL

BY	SEN-BMCD	CHKD	APP	APP
DATE	4-15-06	DATE	DATE	DATE
SCALE	AS NOTED	DWG. NO.	01223-46003	PG 002



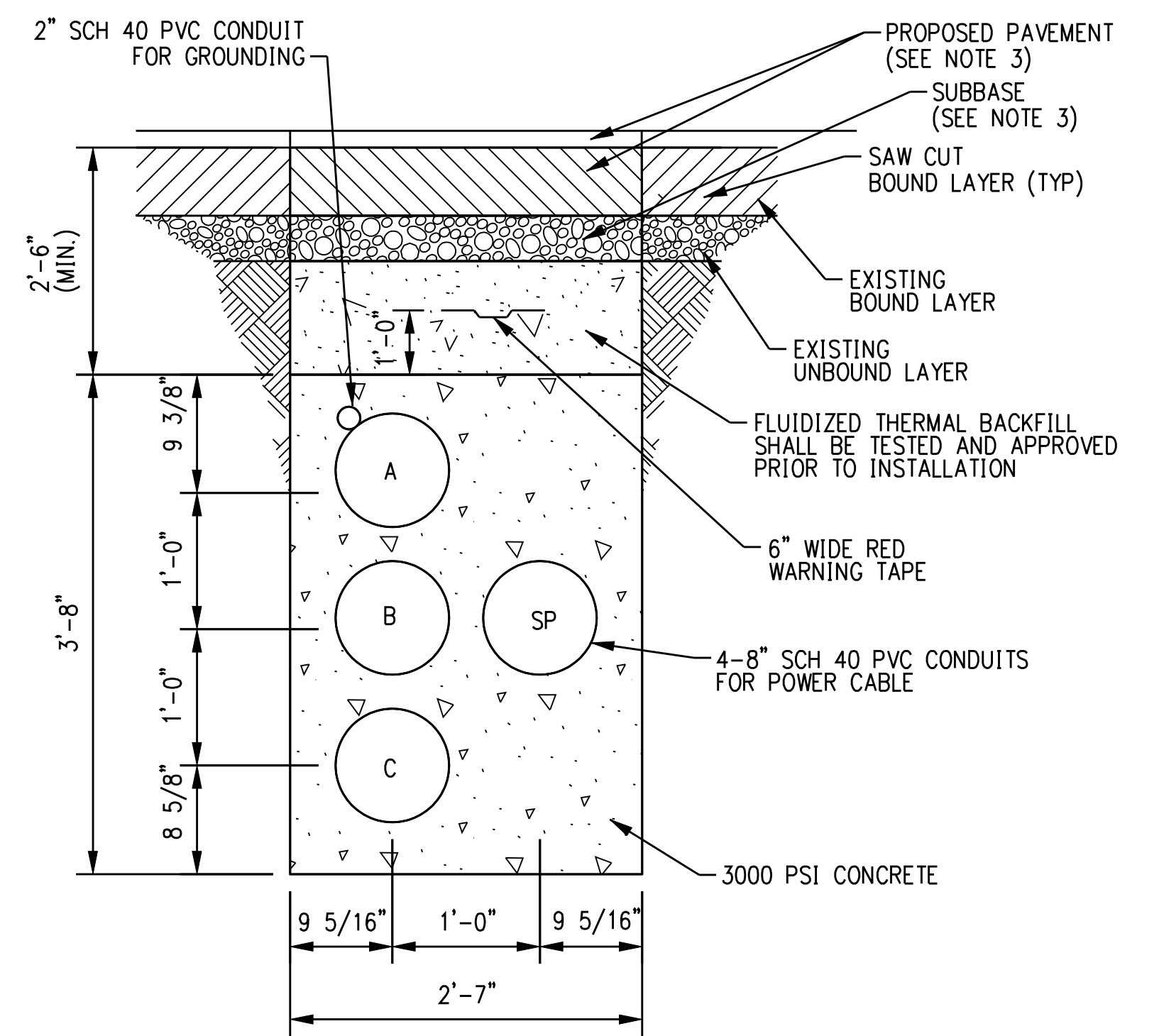
TYPICAL UTILITY BRIDGE DUCT BANK WITH SPARE

SECTION O
NTS



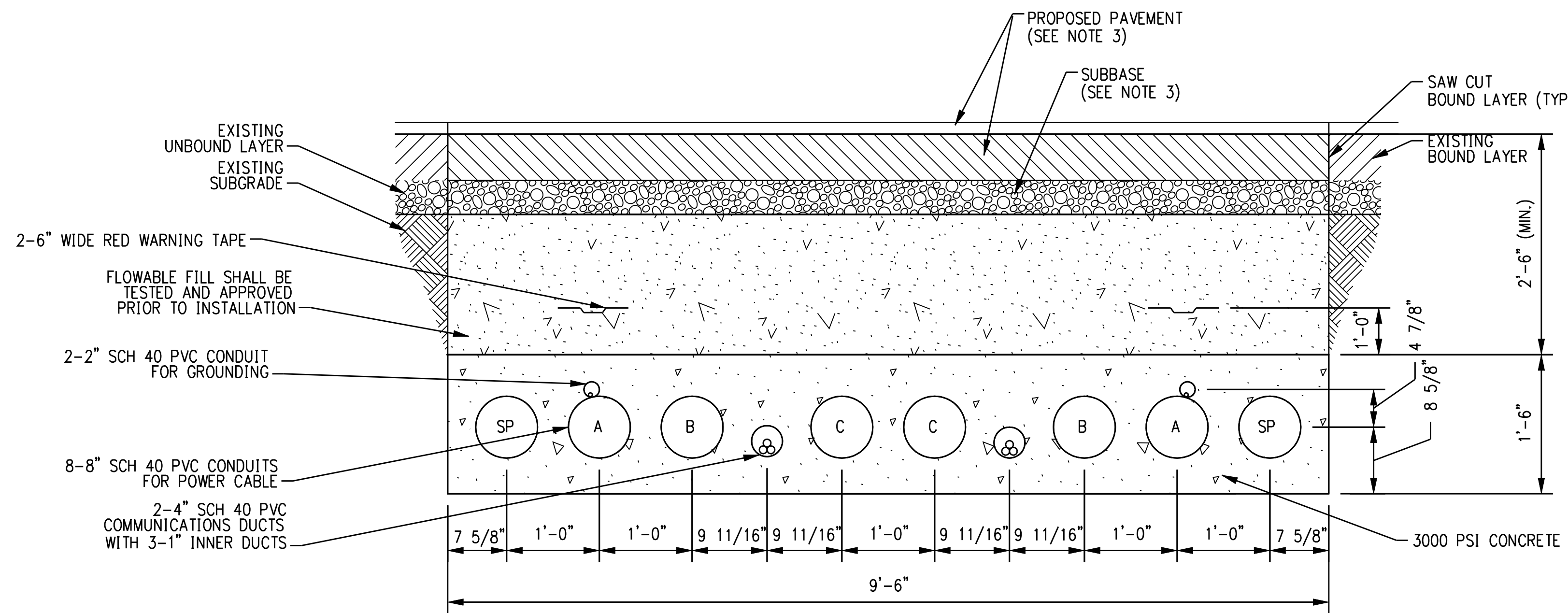
UTILITY BRIDGE SINGLE CIRCUIT WITH COMMUNICATIONS DUCT BANK AND SPARE

SECTION P
NTS



UTILITY BRIDGE SINGLE CIRCUIT DUCT BANK WITH SPARE

SECTION Q
NTS



UTILITY BRIDGE REDUCED-HEIGHT DUCT BANK WITH SPARE

SECTION R
NTS

GENERAL NOTES:

- STANDARD TRENCH WITH PERMANENT PAVEMENT RESTORATION IN STATE HIGHWAY SHOWN. PAVEMENT RESTORATION REQUIREMENTS SHALL VARY DEPENDENT ON SPECIFIC EXISTING PAVEMENT CROSS SECTIONS AND MATERIALS.
- OMITTED
- REFERENCE RESTORATION DRAWINGS FOR PROPOSED PAVEMENT SECTIONS.

COPYRIGHT © 2007 BURNS & McDONNELL ENGINEERING COMPANY, INC.

DOCKET No. 272

ISSUED FOR CONSTRUCTION

no.	date	revisions	by	chk
1	5/10/07	ISSUED CSC REVISED	CTC	

Burns & McDonnell
SINCE 1898

date 4/15/06
designed C. COURTRIGHT
detailed L. ROWSE
checked S. NEWLAND

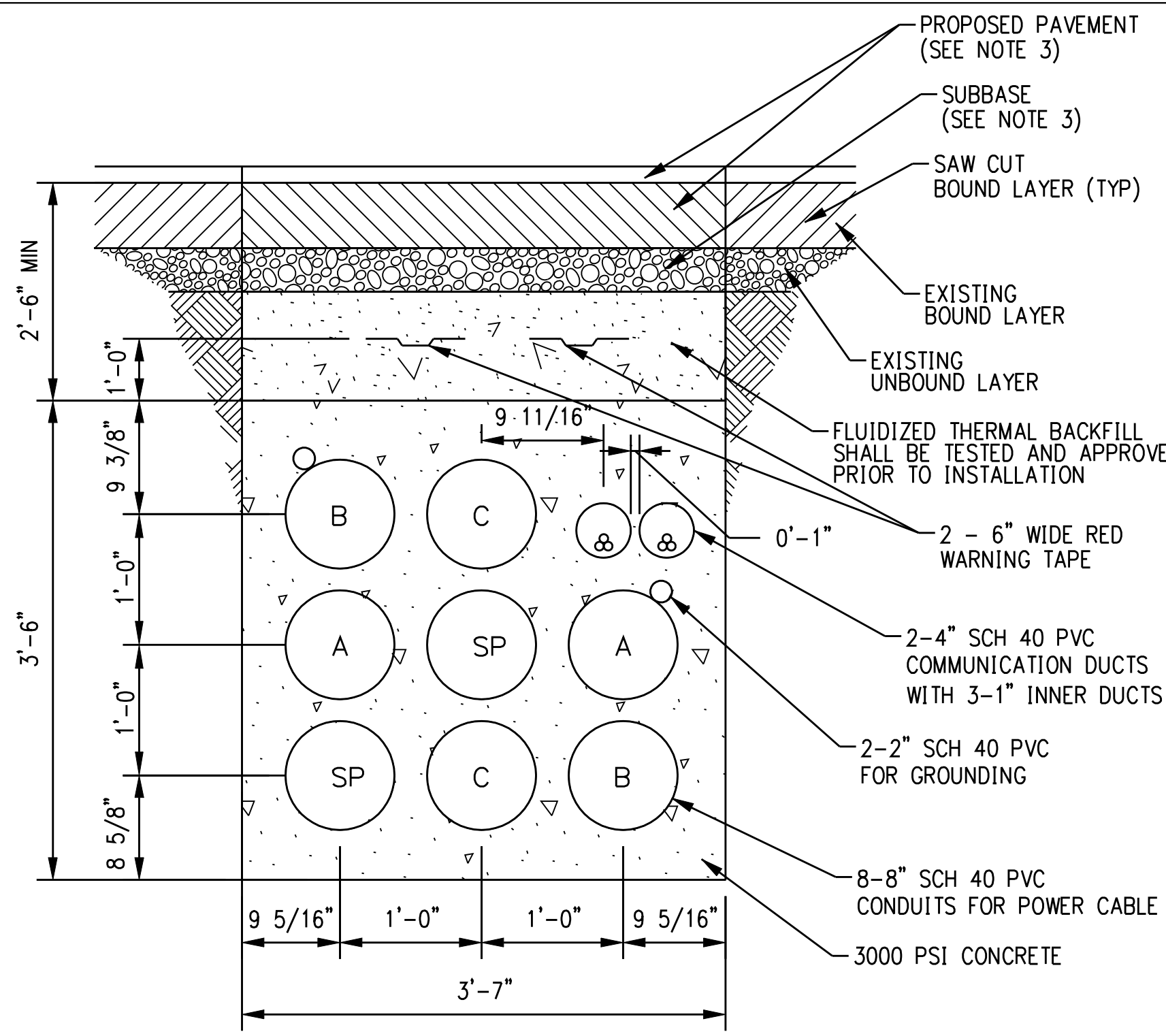
MF	NO.	DATE	REVISIONS	BY	CHK	APP	APP

NORTHEAST UTILITIES SERVICE CO.

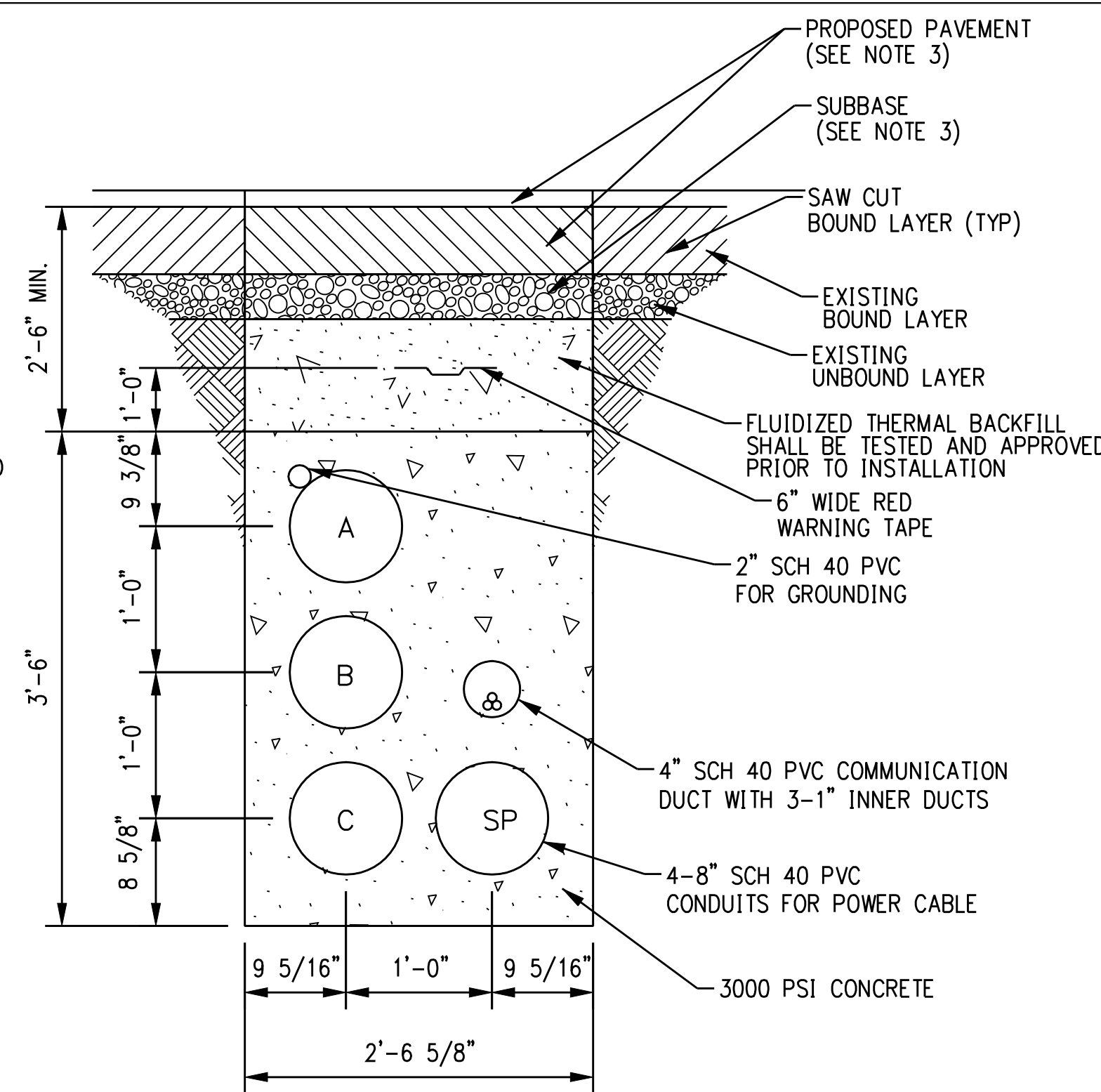
FOR THE CONNECTICUT LIGHT & POWER COMPANY

TITLE MIDDLETOWN-NORWALK 345KV TRANSMISSION PROJECT
UTILITY BRIDGE DUCT BANK DETAILS

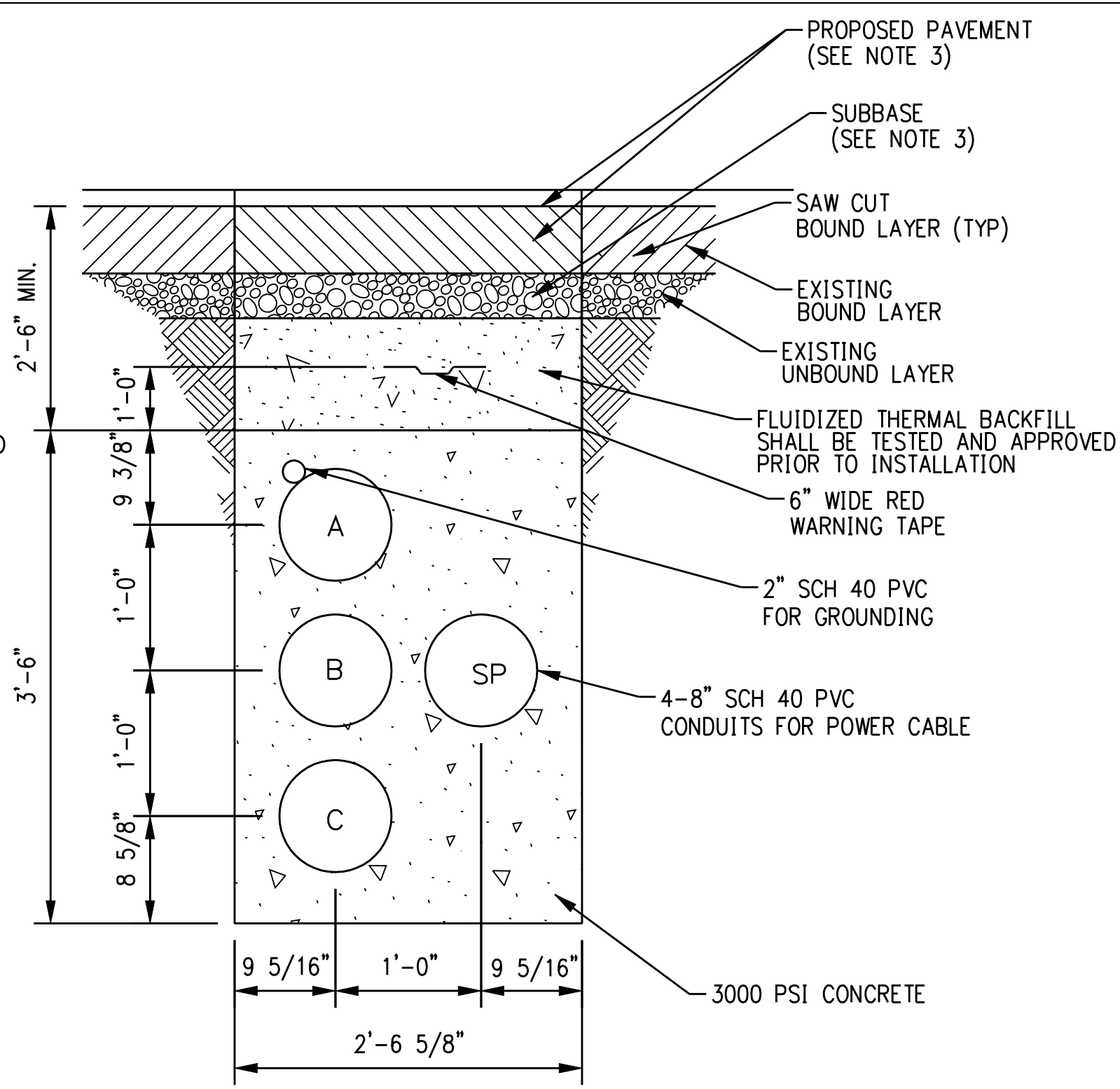
BY SEN-BMCD	CHKD	APP	APP
DATE 4-15-06	DATE	DATE	DATE
SCALE AS NOTED	D	DWG. NO. 01223-46003	PG 003



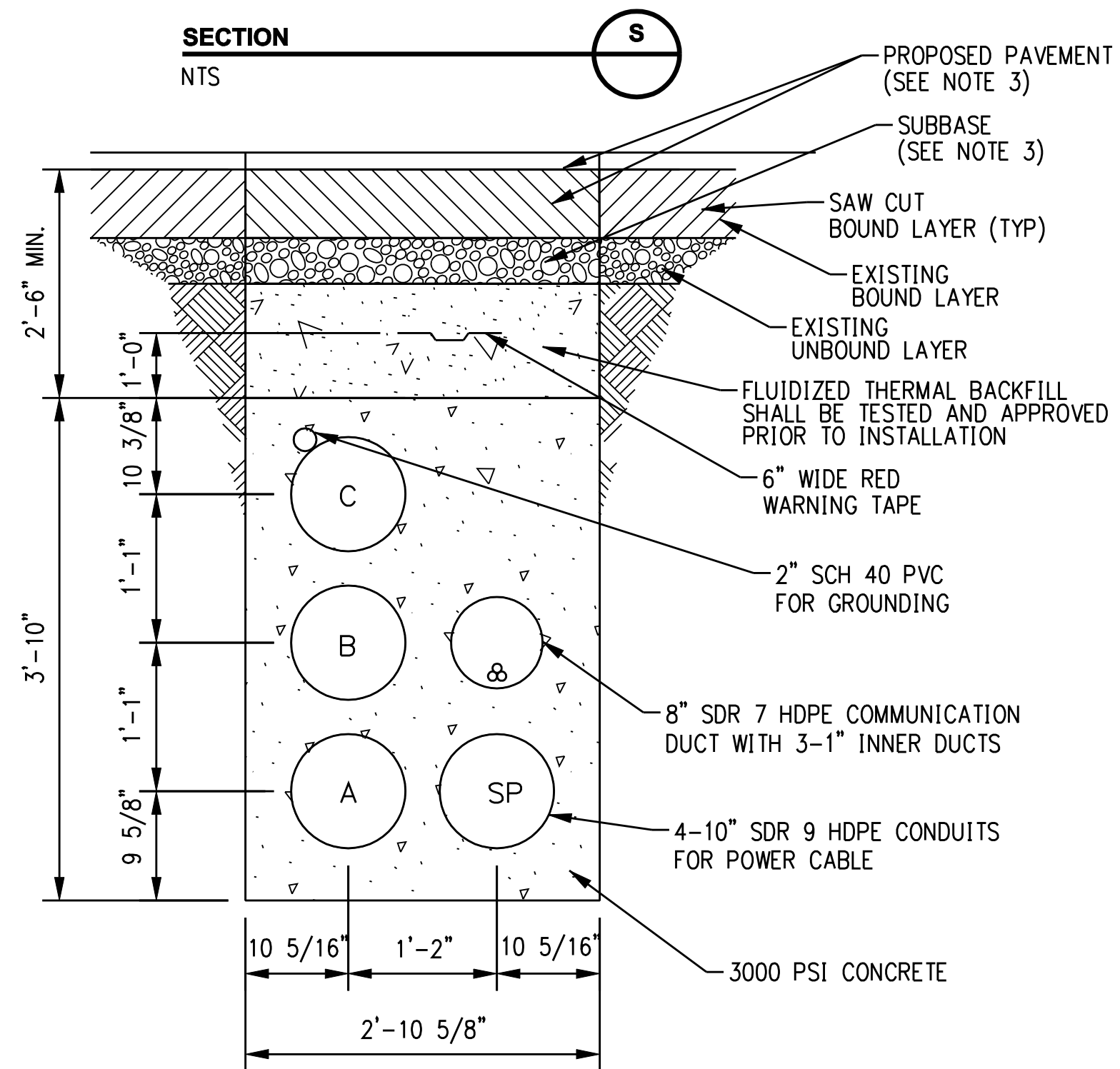
TYPICAL JACK AND BORE DUCT BANK



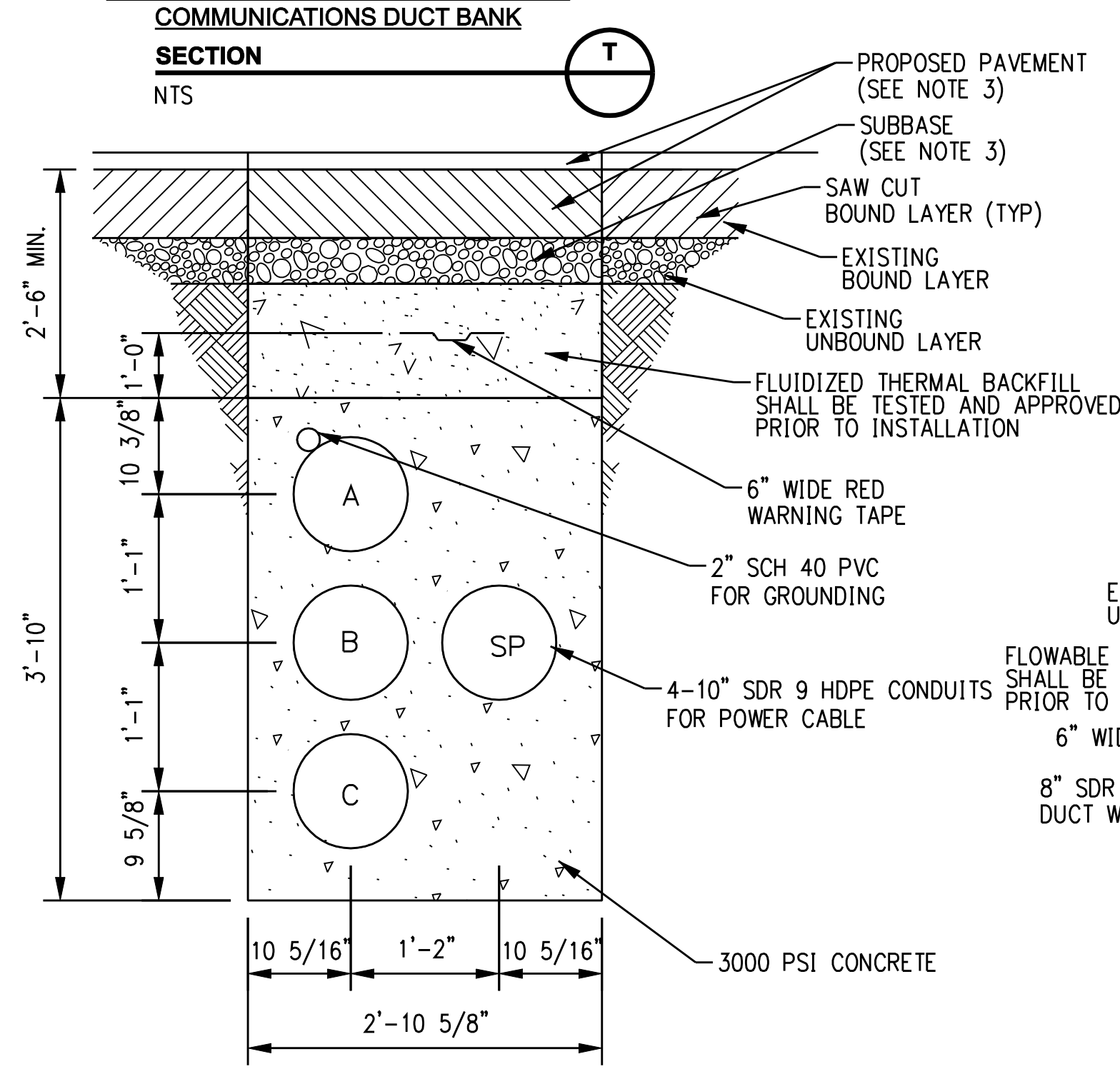
JACK AND BORE SINGLE CIRCUIT WITH COMMUNICATIONS DUCT BANK



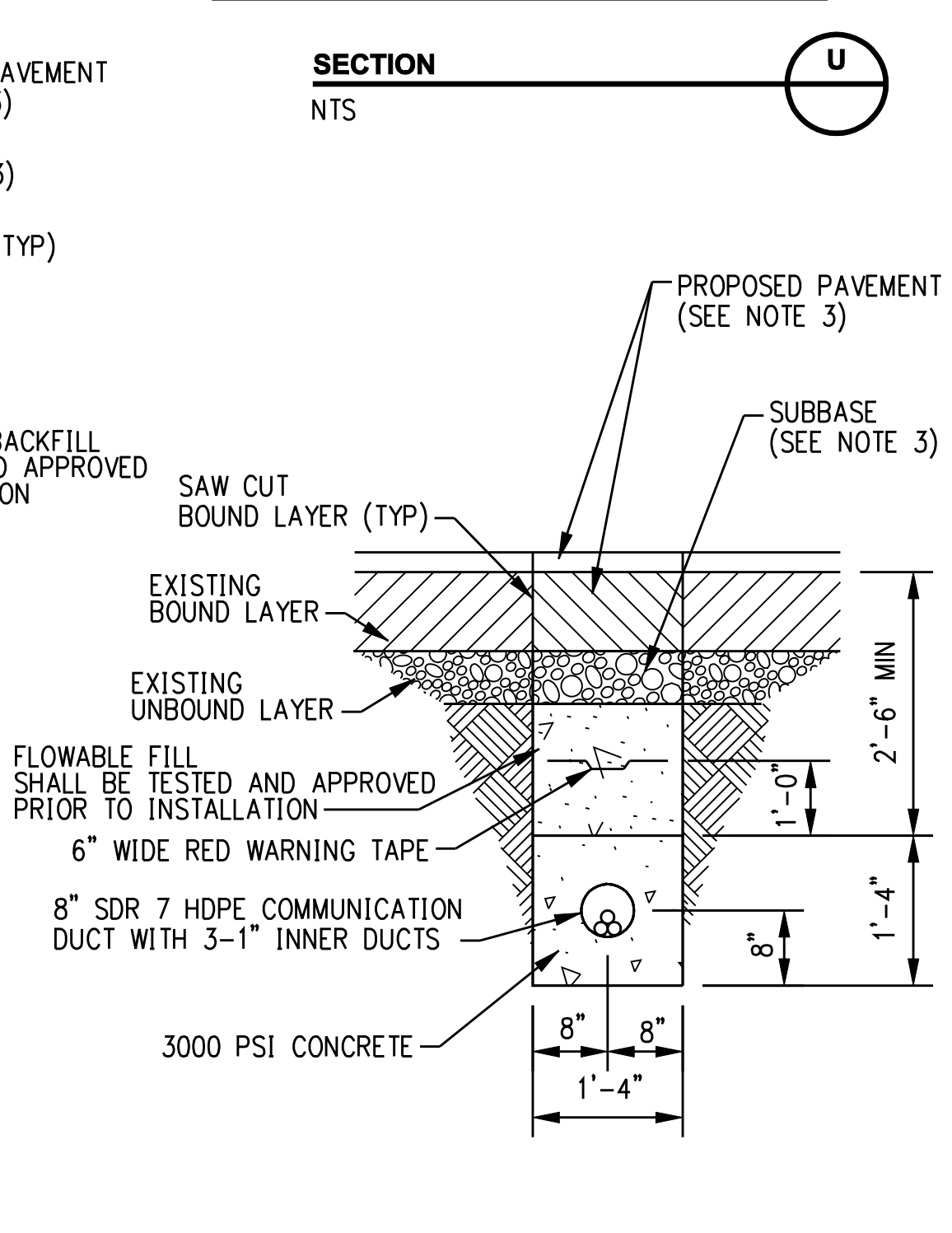
JACK AND BORE SINGLE CIRCUIT DUCT BANK



HORIZONTAL DIRECTIONAL DRILL SINGLE CIRCUIT WITH COMMUNICATIONS DUCT BANK



HORIZONTAL DIRECTIONAL DRILL SINGLE CIRCUIT DUCT BANK



HORIZONTAL DIRECTIONAL DRILL COMMUNICATIONS DUCT BANK

- GENERAL NOTES:
- STANDARD TRENCH WITH PERMANENT PAVEMENT RESTORATION IN STATE HIGHWAY SHOWN. PAVEMENT RESTORATION REQUIREMENTS SHALL VARY DEPENDENT ON SPECIFIC EXISTING PAVEMENT CROSS SECTIONS AND MATERIALS.
 - OMITTED.
 - REFERENCE RESTORATION DRAWINGS FOR PROPOSED PAVEMENT SECTIONS.

DOCKET No. 272

ISSUED FOR CONSTRUCTION

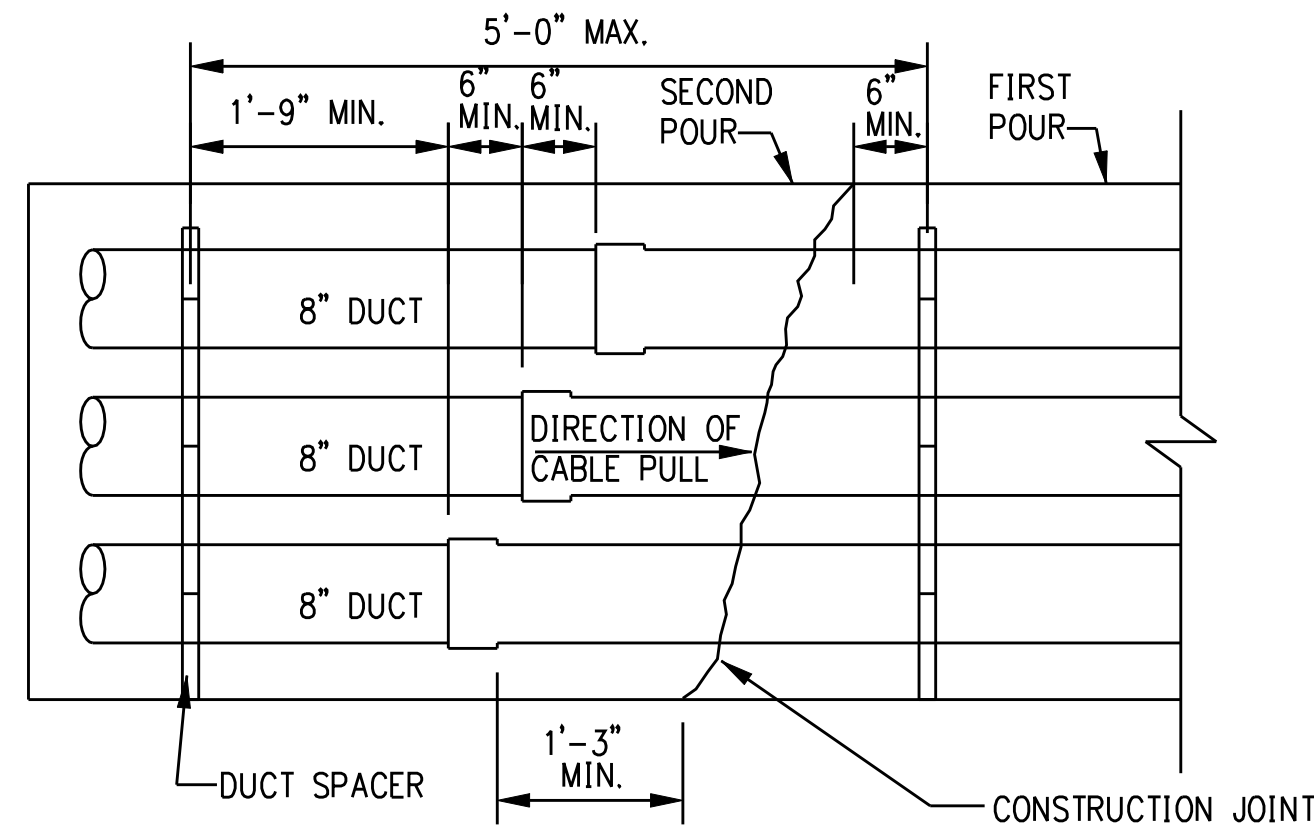
no.	date	revisions	by	chk
1	5/10/07	ISSUED CSC REVISED	CTC	

Burns & McDonnell SINCE 1898	
date	4/15/06
designed	C. COURTRIGHT
detailed	L. ROWSE
checked	S. NEWLAND

MF	NO.	DATE	REVISIONS	BY	CHK	APP	APP

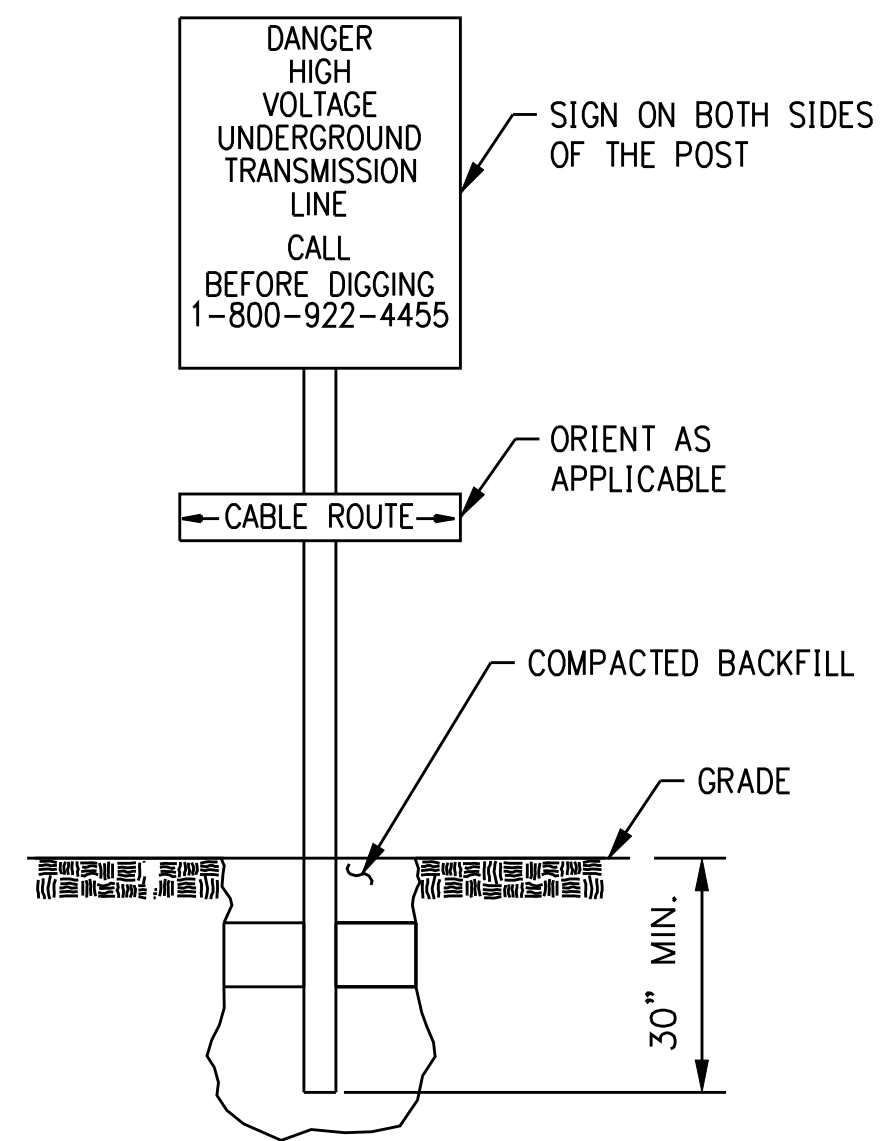
NORTHEAST UTILITIES SERVICE CO.			
FOR THE CONNECTICUT LIGHT & POWER COMPANY			
TITLE MIDDLETOWN-NORWALK 345KV TRANSMISSION PROJECT JACK AND BORE AND HORIZONTAL DIRECTIONAL DRILL DUCT BANK DETAILS			
BY SEN-BMCD	CHKD	APP	APP
DATE 4-15-06	DATE	DATE	DATE
SCALE AS NOTED	D	DWG. NO. 01223-46003	PG 004

Cable Pulling Direction and Tension			
Middletown-Norwalk 345-kV Transmission Line Project Segment 3 Milford, Connecticut			
Cable Pulling Direction	From Vault	To Vault	Calculated Maximum Side Wall Pressure (lb/ft.)
SC18 (UI Portion)	1	14,900	70
2	1	19,600	280
2	3	13,200	70
4	3	11,900	30
5	4	12,600	120
6	5	15,900	160
7	6	11,400	110
East Devon S/S	7	8,394	110



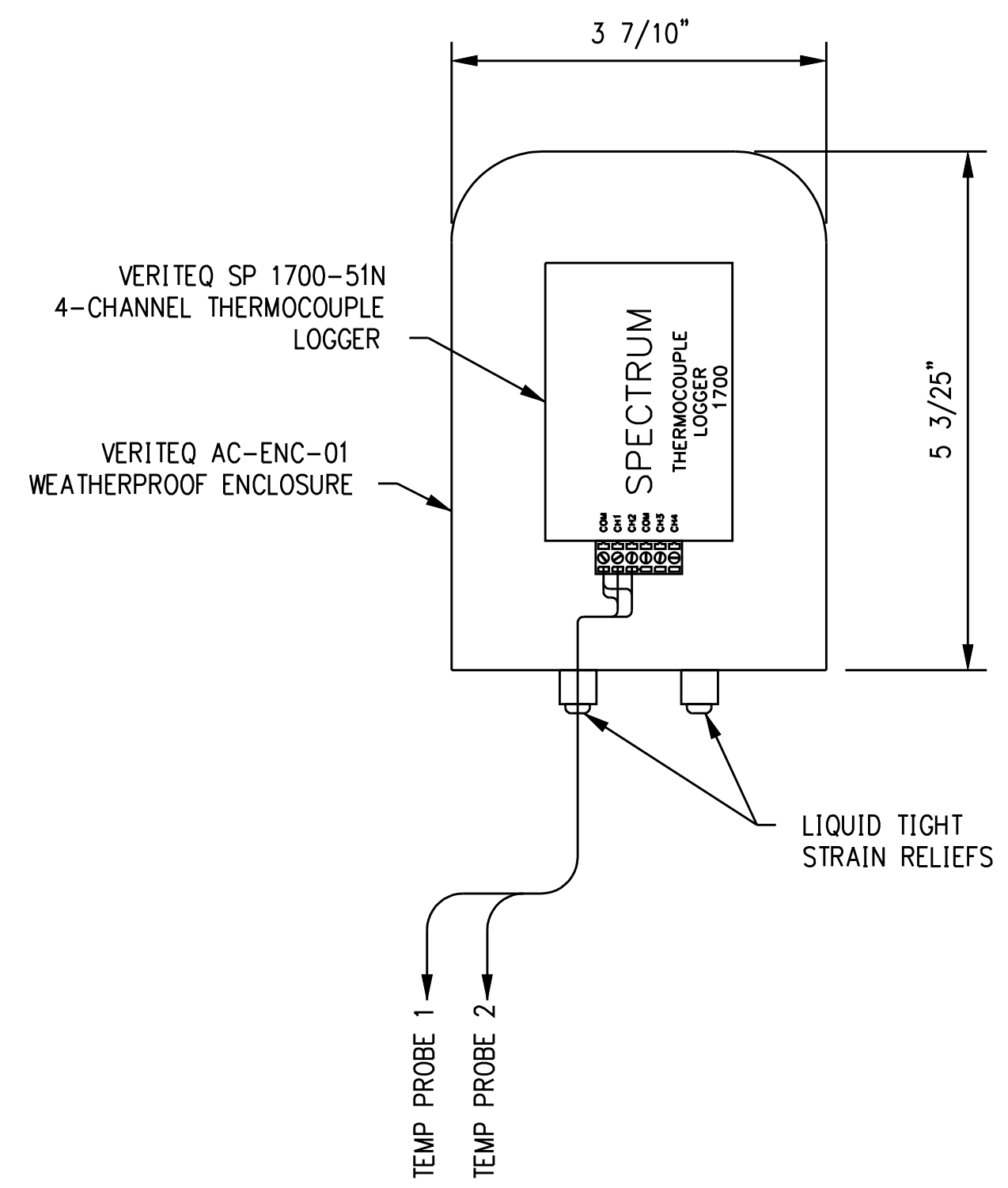
CONSTRUCTION JOINT DETAIL

DETAIL 1
NTS



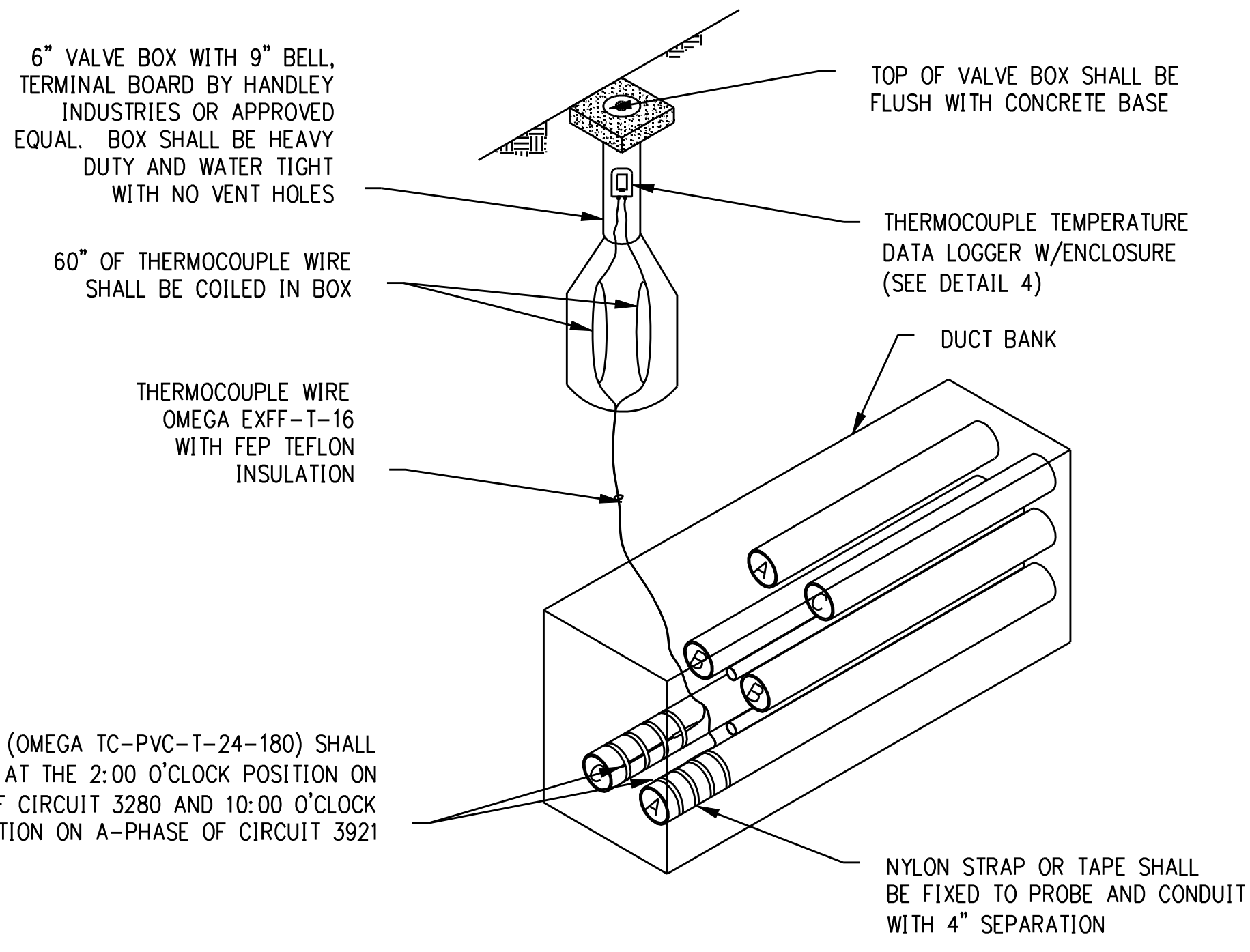
TYPICAL WARNING SIGN

DETAIL 2
NTS



THERMOCOUPLE TEMPERATURE DATA LOGGER

DETAIL 4
NTS



TEMPERATURE MONITORING STATION INSTALLATION

DETAIL 5
NTS

TMS #S	CENTER OF TMS
TMS #1	N 635,805.2937 E 902,023.4409
TMS #2	N 637,115.6960 E 902,405.3252
TMS #3	N 638,747.1784 E 902,412.4686
TMS #4	N 640,049.9964 E 902,759.6060
TMS #5	N 641,471.2471 E 903,266.6231
TMS #6	N 642,260.5161 E 904,223.2260
TMS #7	N 643,280.0469 E 904,329.8339

COPYRIGHT © 2007 BURNS & McDONNELL ENGINEERING COMPANY, INC.

DOCKET No. 272

ISSUED FOR CONSTRUCTION

no.	date	revisions	by	chk
1	5/10/07	ISSUED CSC REVISED	CTC	

Burns & McDonnell
SINCE 1898

date 11/09/05 detailed L. ROWSE
designed C. COURTRIGHT checked S. NEWLAND

MF	NO.	DATE	REVISIONS	BY	CHK	APP	APP

NORTHEAST UTILITIES SERVICE CO.

FOR THE CONNECTICUT LIGHT & POWER COMPANY

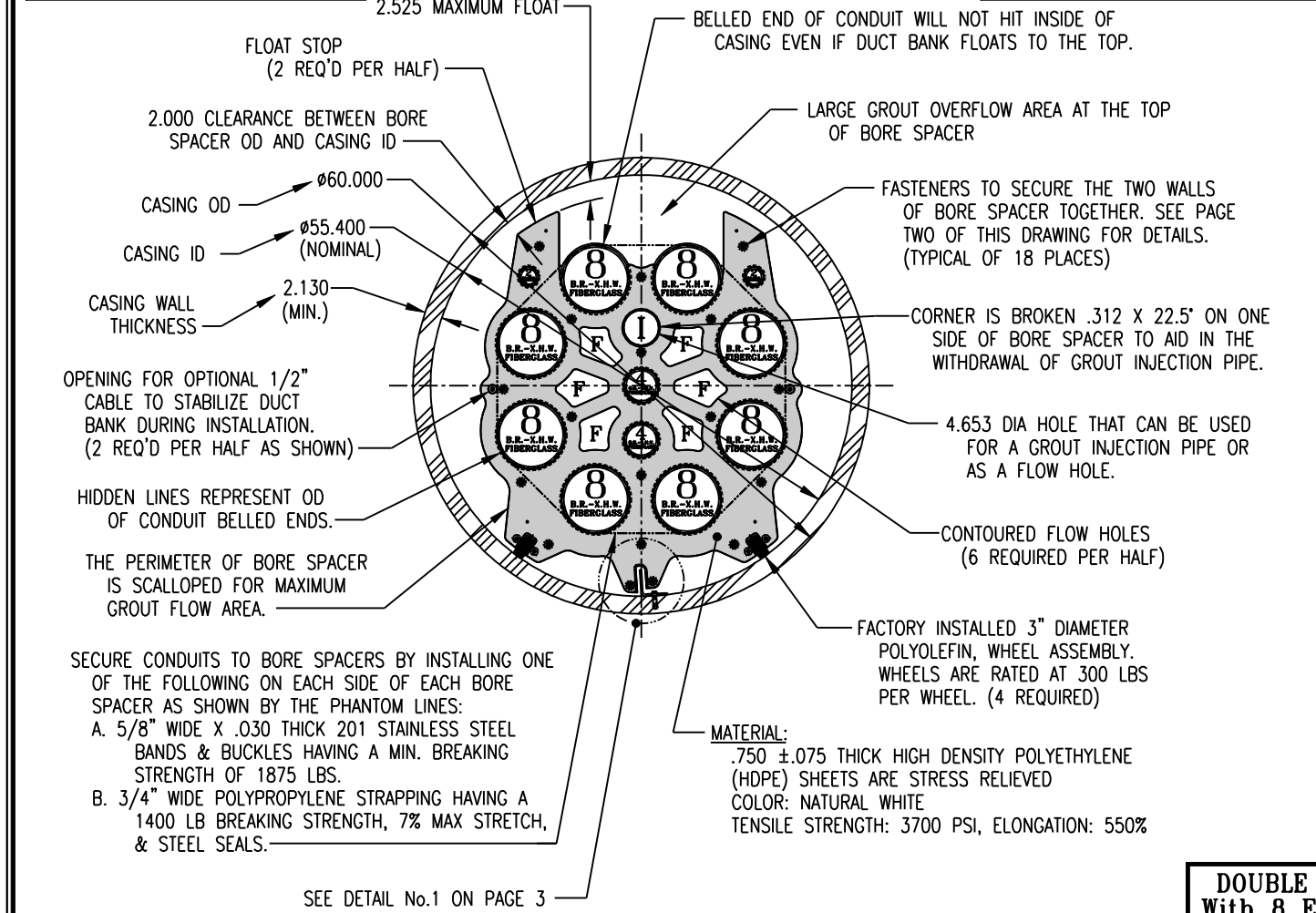
TITLE MIDDLETOWN-NORWALK 345KV TRANSMISSION PROJECT
CABLE AND TEMPERATURE MONITORING DETAILS

BY SEN-BMCD	CHKD	APP	APP
DATE 11-09-05	DATE	DATE	DATE
SCALE AS NOTED	D	DWG. NO. 01223-46003	PG 005

CONDUIT SIZE	MIN. DISTANCE
2 & 8	3,000
4 & 4	2,500
4 & 8	3,000
8 & 8	3,000

CTR TO CTR DISTANCE BETWEEN CONDUITS	CONDUIT SIZE	MIN. DISTANCE
2 & 8	8,817	
4 & 4	7,152	
4 & 8	9,834	
8 & 8	12,000	

- NOTES:
1. USE ONE BORE SPACER FOR EVERY 5 FEET OF DUCT BANK.
 2. THE CASING ID MUST BE SMOOTH AND FREE FROM RIDGES, PROJECTIONS AND SEAMS THAT MIGHT IMPEDE THE ROLLING OF WHEELS.
 3. A TROUGH OR FEEDER BRIDGE SHOULD BE CONSTRUCTED AT THE LEADING END OF THE CASING TO SUPPORT SECTIONS OF DUCT BANK AS THEY ARE ASSEMBLED AND PULLED INTO THE CASING.
 4. THIS BORE SPACER IS DESIGNED FOR A CASING THAT IS STRAIGHT AND TRUE.
 5. IT IS POSSIBLE THAT THE DUCT BANK WILL ROTATE (CORKSCREW) AS IT IS PULLED THRU THE CASING UNLESS AN "OFF CENTER WEIGHT TECHNIQUE," "STABILIZATION CABLES" OR "L" ANGLE & SLOT TECHNIQUE IS USED.
 6. THIS BORE SPACER WILL ACCOMMODATE THE "SINGLE-END," "FLUSH COUPLED EXTRACTABLE INJECTION PIPE" OR "STATIONARY SACRIFICIAL INJECTION PIPE" METHODS OF GROUT FILLING. IT IS ESSENTIAL THAT THE BORE SPACERS ARE HELD IN PLACE RELATIVE TO THE CONDUIT. REASON: AS THE GROUT IS PUMPED INTO THE CASING, THE COMPARTMENTS FORMED BETWEEN THE BORE SPACERS ARE MORE OR LESS FILLED SEQUENTIALLY, PLACING A TEMPORARY THRUST LOAD ON EACH BORE SPACER.
 7. THE DUCT BANK MUST BE HELD IN POSITION AT BOTH ENDS TO ACCOMMODATE POSSIBLE UNEVEN THRUST LOADS THAT MAY BE GENERATED DURING THE GROUTING OPERATION.
 8. WHEN FILLING THE AREA BETWEEN THE CONDUITS AND CASING WITH GROUT, TAKE CARE NOT TO EXCEED THE HYDRAULIC COLLAPSE PRESSURE OF THE CONDUITS.
 9. DEPENDING ON THE GROUT SPECIFIC GRAVITY AND GROUT FLOW, IT IS POSSIBLE THAT THE DUCT BANK WILL FLOAT TO THE TOP OF THE CASING. 11. ACTUAL QUANTITY OF GROUT USED SHOULD BE MEASURED AND RECORDED.



THIS BORE SPACER DESIGN IS COVERED BY ONE OR MORE PENDING PATENT APPLICATIONS. FURTHER, THIS DRAWING AND PROPRIETARY DESIGN IS SOLELY THE PROPERTY OF UNDERGROUND DEVICES, INC. AND IS SUBMITTED WITH THE UNDERSTANDING THAT IT WILL BE KEPT IN STRICT CONFIDENCE.

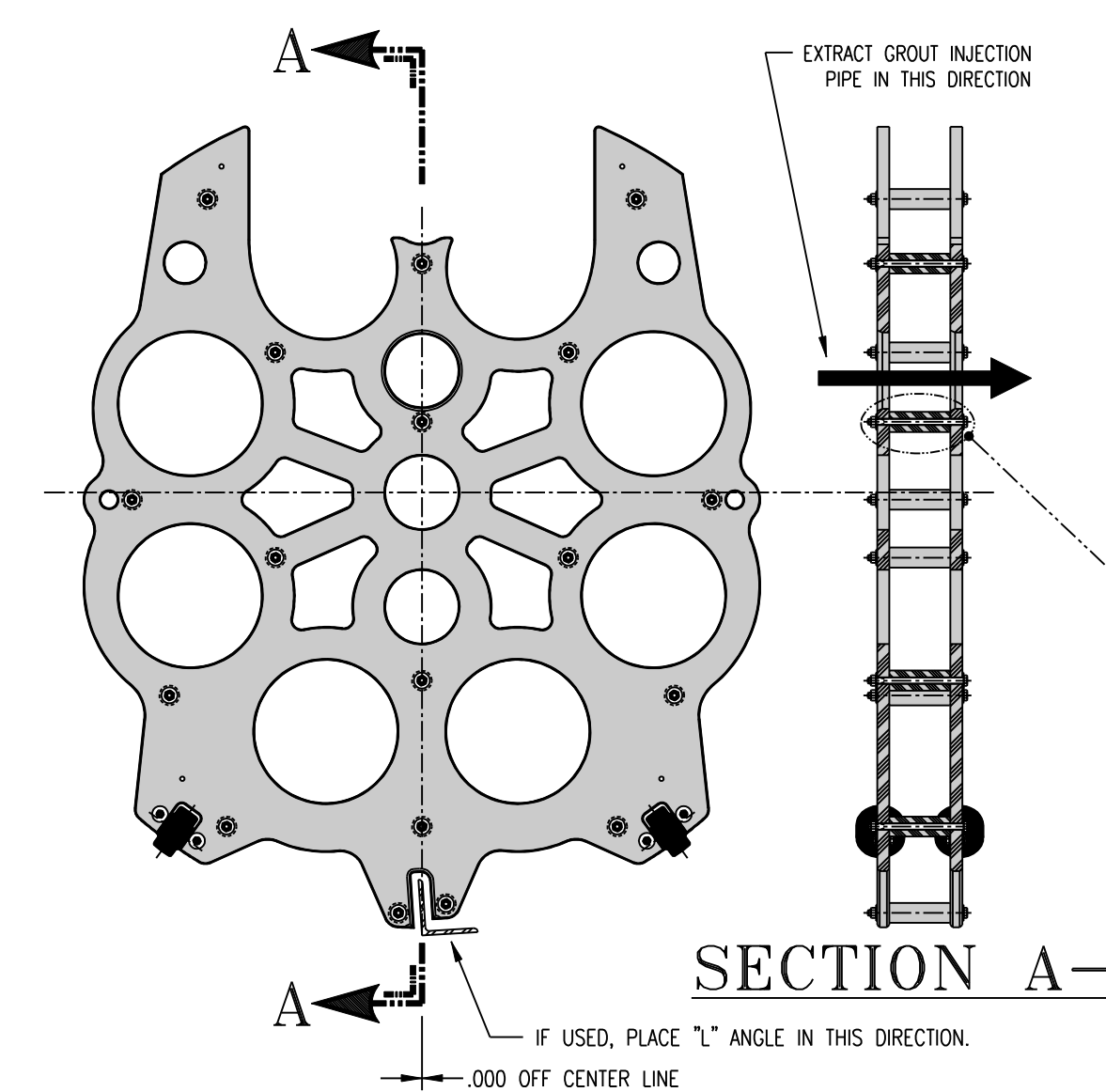
THIS INFORMATION IS BASED ON OUR EXPERIENCE TO DATE AND WE BELIEVE IT TO BE RELIABLE. IT IS INTENDED ONLY AS A GUIDE FOR USE AT YOUR DISCRETION AND RISK. WE CANNOT GUARANTEE FAVORABLE RESULTS AND ASSUME NO LIABILITY IN CONNECTION WITH ITS USE OR USE OF THE PRODUCTS DESCRIBED.

UNDERGROUND DEVICES
CATALOG NUMBER:
BS4150W4

SCALE: 1" = 1.000'

1st Designed For BURNS & MCDONNELL
Kansas City, MO - CHRIS COURTRIGHT - Phone: 816-333-9400

UNDERGROUND DEVICES, INC. 90-4150
NORTHBRIDGE, ILLINOIS 60062 - PHONE: (847) 205-9000



THIS BORE SPACER DESIGN IS COVERED BY ONE OR MORE PENDING PATENT APPLICATIONS. FURTHER, THIS DRAWING AND PROPRIETARY DESIGN IS SOLELY THE PROPERTY OF UNDERGROUND DEVICES, INC. AND IS SUBMITTED WITH THE UNDERSTANDING THAT IT WILL BE KEPT IN STRICT CONFIDENCE.

THIS INFORMATION IS BASED ON OUR EXPERIENCE TO DATE AND WE BELIEVE IT TO BE RELIABLE. IT IS INTENDED ONLY AS A GUIDE FOR USE AT YOUR DISCRETION AND RISK. WE CANNOT GUARANTEE FAVORABLE RESULTS AND ASSUME NO LIABILITY IN CONNECTION WITH ITS USE OR USE OF THE PRODUCTS DESCRIBED.

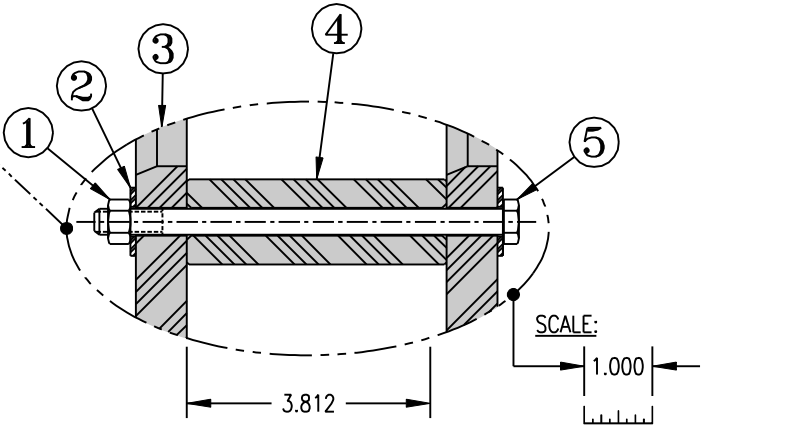
UNDERGROUND DEVICES
CATALOG NUMBER:
BS4150W4

SCALE: 1" = 1.000'

1st Designed For BURNS & MCDONNELL
Kansas City, MO - CHRIS COURTRIGHT - Phone: 816-333-9400

UNDERGROUND DEVICES, INC. 90-4150
NORTHBRIDGE, ILLINOIS 60062 - PHONE: (847) 205-9000

ITEM NUMBER	QTY REQ'D	DESCRIPTION
①	18	3/8-16 HEX NUT (GRADE 2, CENTERLOCK LOCKING NUT, ZINC PLATED STEEL)
②	36	3/8 FLAT WASHER (438 ID X 1.000 OD X .078 THK, USS STANDARD, ZINC PLATED STEEL)
③	2	UDI 90-4150 BLANK BORE SPACER
④	18	UDI 90-803 SPACER BUSHING (TYPE 1 PVC DARK GRAY)
⑤	18	3/8-16 X 6" LG HEX HEAD CAP SCREW (GRADE 2, ZINC PLATED LOW CARBON STEEL)



CONDUIT AND HOLE SIZES			
CONDUIT OD	FULL HOLE DIAMETER	PARTIAL HOLE DIAMETER	
NOMINAL	ACTUAL	BANDED	NON-BANDED
2"	2.500	---	2.620
4"	4.500	---	4.653
8"	8.900	9.015	8.920

DOUBLE WALL, FULL COMPLEMENT BORE SPACER With 8 Ea. 8", 2 Ea. 4" & 2 Ea. 2" RTRC-XHW (Bullet-Resistant, Extra Heavy Wall Fiberglass) Conduits Per NEMA TC-2002 In A 60,000 OD X 2.130 Min. Wall HOBAS (Centrifugally Cast Fiberglass Reinforced Polymer Mortar) Casing

See At Left: Alan Armstrong, B. Muehlenbeck, Don McCoy

UNDERGROUND DEVICES
CATALOG NUMBER:
BS4150W4

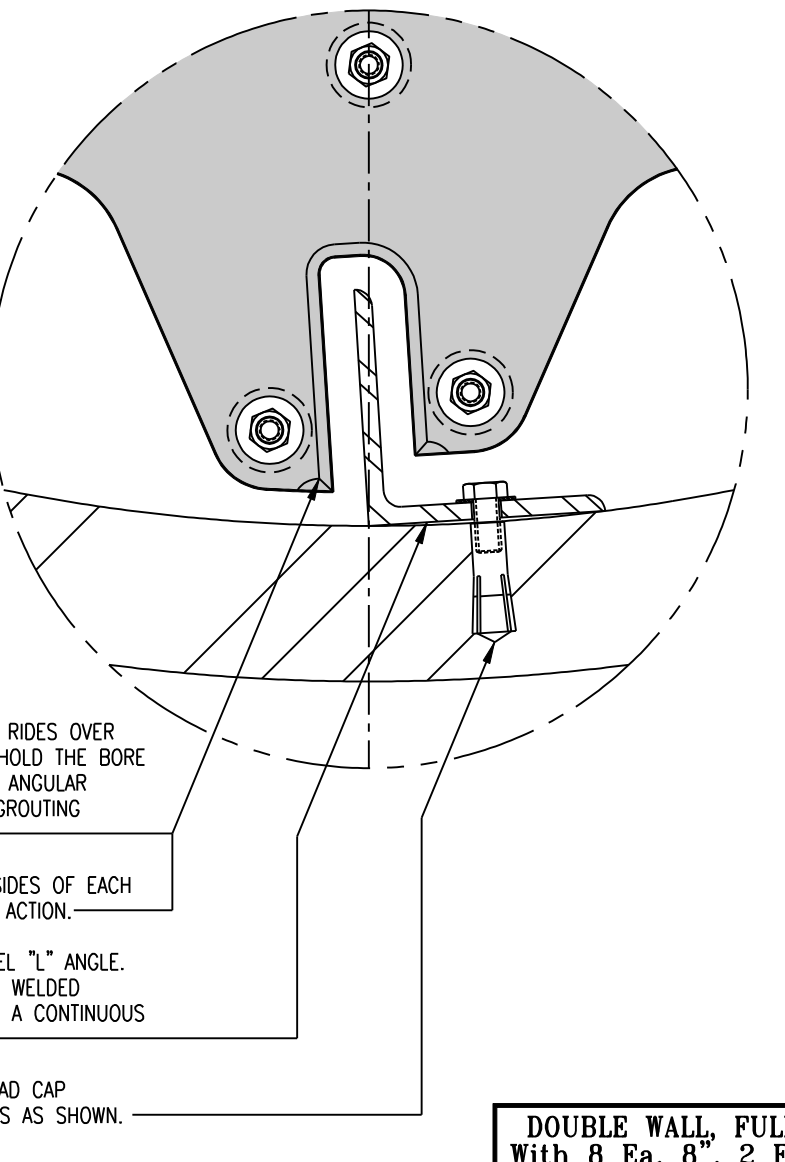
SCALE: 1" = 1.000'

1st Designed For BURNS & MCDONNELL
Kansas City, MO - CHRIS COURTRIGHT - Phone: 816-333-9400

UNDERGROUND DEVICES, INC. 90-4150
NORTHBRIDGE, ILLINOIS 60062 - PHONE: (847) 205-9000

DETAIL No.1

SCALE: 4X



THIS BORE SPACER DESIGN IS COVERED BY ONE OR MORE PENDING PATENT APPLICATIONS. FURTHER, THIS DRAWING AND PROPRIETARY DESIGN IS SOLELY THE PROPERTY OF UNDERGROUND DEVICES, INC. AND IS SUBMITTED WITH THE UNDERSTANDING THAT IT WILL BE KEPT IN STRICT CONFIDENCE.

THIS INFORMATION IS BASED ON OUR EXPERIENCE TO DATE AND WE BELIEVE IT TO BE RELIABLE. IT IS INTENDED ONLY AS A GUIDE FOR USE AT YOUR DISCRETION AND RISK. WE CANNOT GUARANTEE FAVORABLE RESULTS AND ASSUME NO LIABILITY IN CONNECTION WITH ITS USE OR USE OF THE PRODUCTS DESCRIBED.

UNDERGROUND DEVICES
CATALOG NUMBER:
BS4150W4

SCALE: 1" = 1.000'

1st Designed For BURNS & MCDONNELL
Kansas City, MO - CHRIS COURTRIGHT - Phone: 816-333-9400

UNDERGROUND DEVICES, INC. 90-4150
NORTHBRIDGE, ILLINOIS 60062 - PHONE: (847) 205-9000

DOUBLE WALL, FULL COMPLEMENT BORE SPACER With 8 Ea. 8", 2 Ea. 4" & 2 Ea. 2" RTRC-XHW (Bullet-Resistant, Extra Heavy Wall Fiberglass) Conduits Per NEMA TC-2002 In A 60,000 OD X 2.130 Min. Wall HOBAS (Centrifugally Cast Fiberglass Reinforced Polymer Mortar) Casing

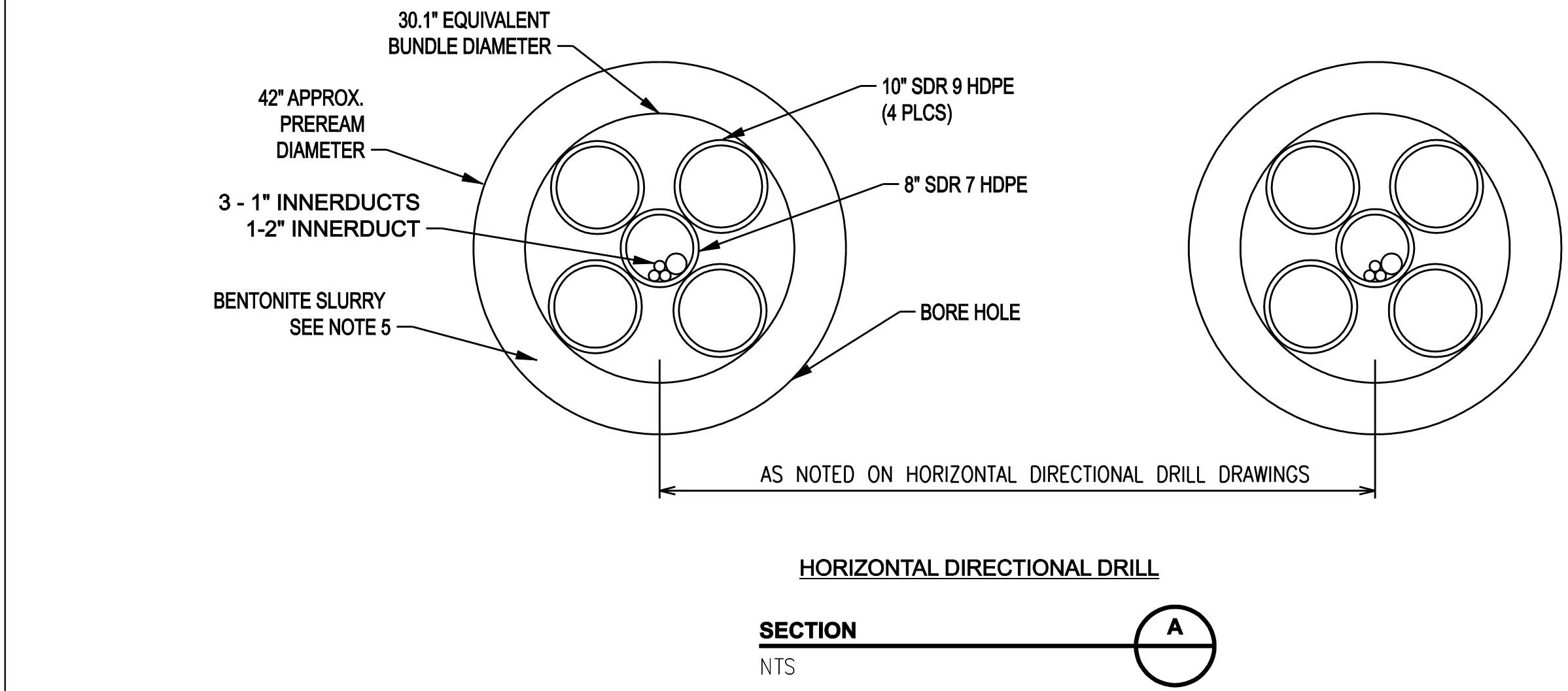
See At Left: Alan Armstrong, B. Muehlenbeck, Don McCoy

UNDERGROUND DEVICES
CATALOG NUMBER:
BS4150W4

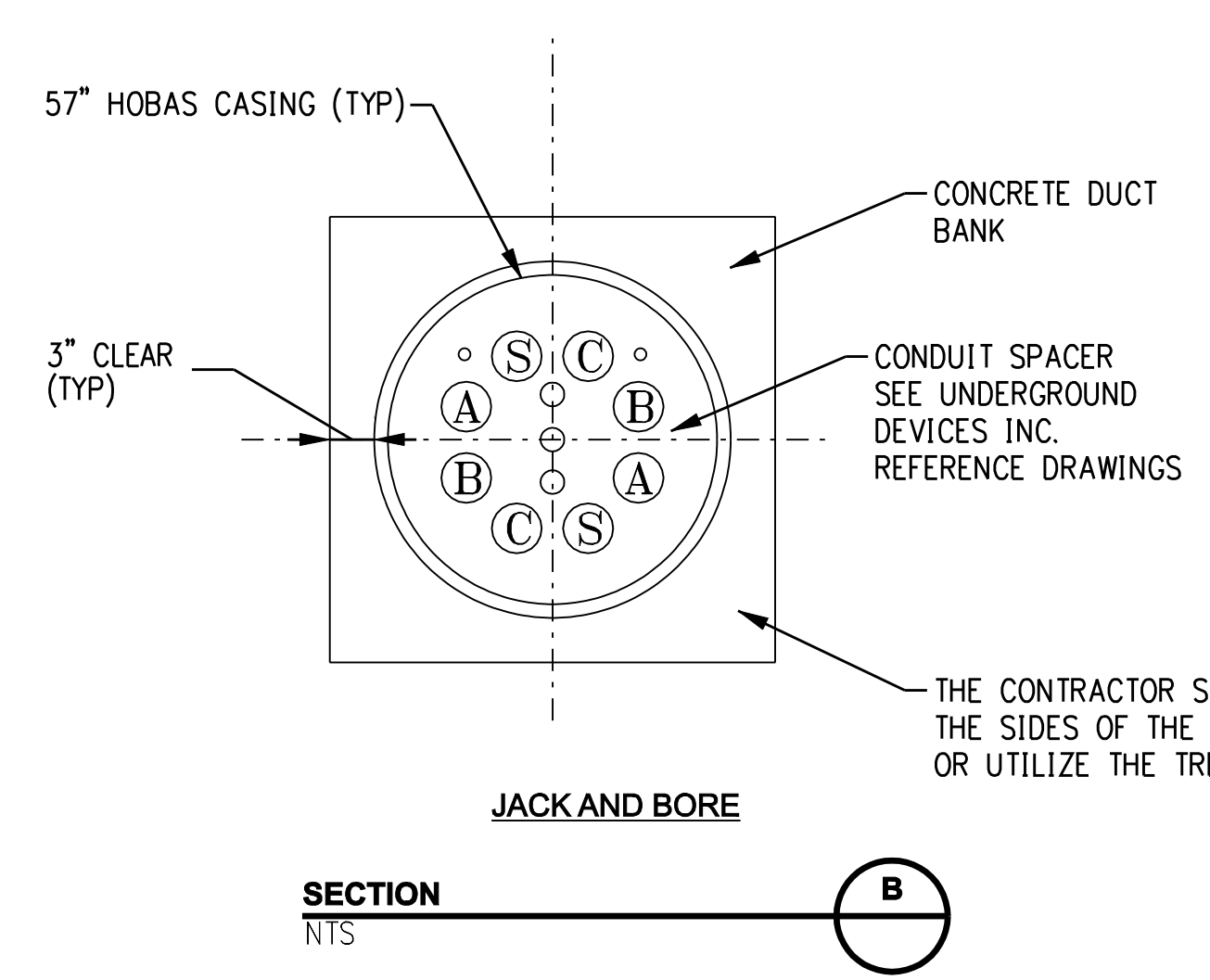
SCALE: 1" = 1.000'

1st Designed For BURNS & MCDONNELL
Kansas City, MO - CHRIS COURTRIGHT - Phone: 816-333-9400

UNDERGROUND DEVICES, INC. 90-4150
NORTHBRIDGE, ILLINOIS 60062 - PHONE: (847) 205-9000



COPYRIGHT © 2007 BURNS & MCDONNELL ENGINEERING COMPANY, INC.



- NOTES:
1. ALL CASING SHALL BE COMPLETELY FILLED WITH A THERMALLY ACCEPTABLE GROUT. GROUT MIX DESIGN SHALL MEET PROJECT SPECIFICATIONS.
 2. GROUT SAMPLES SHALL BE SUBMITTED TO THE TEST COMPANY (CONTACT TEST COMPANY FOR APPROPRIATE SIZE & METHOD OF TRANSPORTATION) IN ACCORDANCE WITH THE SPECIFICATIONS.
 3. CONTRACTOR SHALL FURNISH AND INSTALL CASING PIPE SPACER. SPACERS SHALL BE INSTALLED A MAXIMUM DISTANCE OF 5 FEET APART. SPACERS SHALL BE INSTALLED PER MANUFACTURERS RECOMMENDATIONS.
 4. CONTRACTOR SHALL SUBMIT DETAILED DESIGN OF EACH BORED CROSSING FOR REVIEW, INCLUDING AS A MINIMUM WORK PLAN, EQUIPMENT AND MATERIALS TO BE USED, WORK AREAS, BORE PIT SIZES AND LOCATIONS.
 5. BENTONITE SLURRY SAMPLES SHALL BE SUBMITTED TO THE TEST COMPANY (CONTACT TEST COMPANY FOR APPROPRIATE SIZE & METHOD OF TRANSPORTATION) IN ACCORDANCE WITH THE SPECIFICATIONS.

Burns & McDonnell
SINCE 1898

ISSUED FOR CONSTRUCTION

DOCKET No. 272

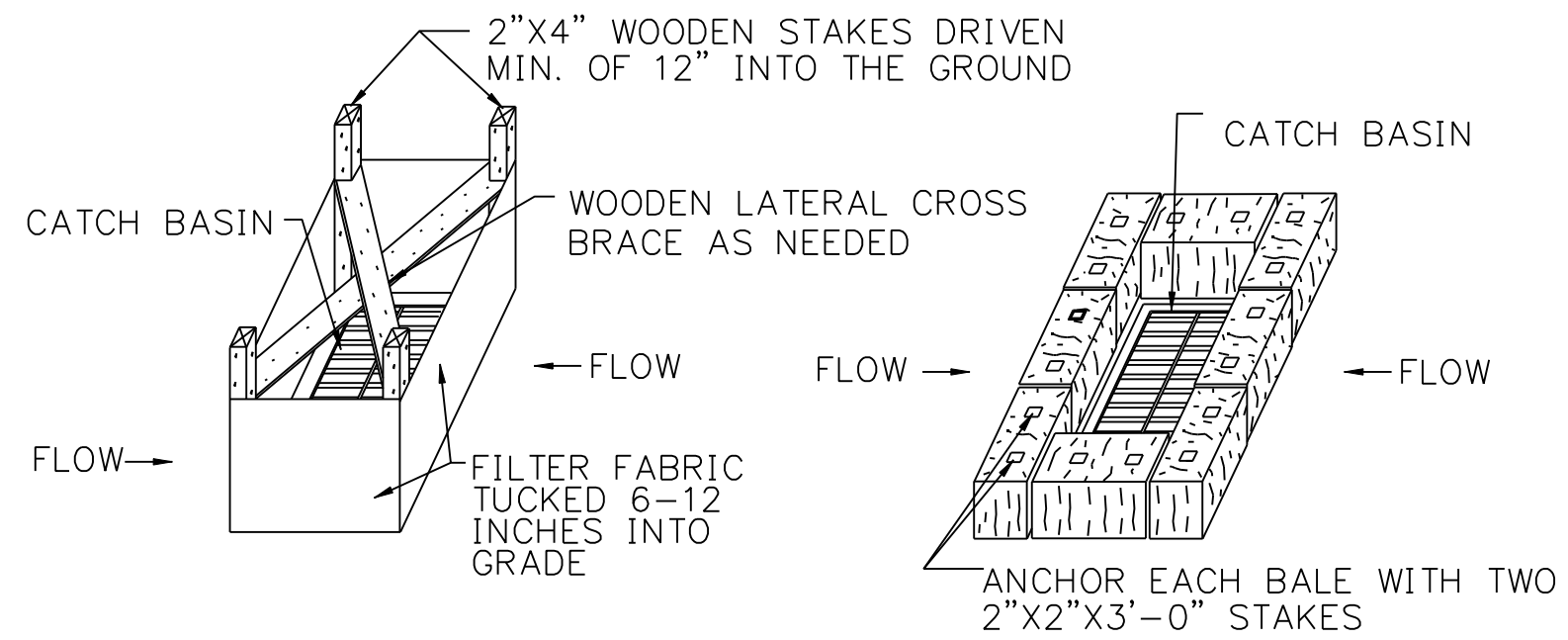
date 6/15/06 detailed L. ROWSE
designed C. COURTRIGHT checked S. NEWLAND

no.	date	revisions	by	chk
1	5/10/07	ISSUED CSC REVISED		CTC

NORTHEAST UTILITIES SERVICE CO.
FOR THE CONNECTICUT LIGHT & POWER COMPANY
TITLE MIDDLETOWN-NORWALK 345KV TRANSMISSION PROJECT
HORIZONTAL DIRECTIONAL DRILL AND JACK AND BORE SECTIONS

BY	SEN-BMCD	CHKD	APP	APP
DATE	6/15/06	DATE	DATE	DATE
SCALE	AS NOTED	D	DWG. NO.	01223-46003 PG 006

MF NO. DATE REVISIONS BY CHK APP APP



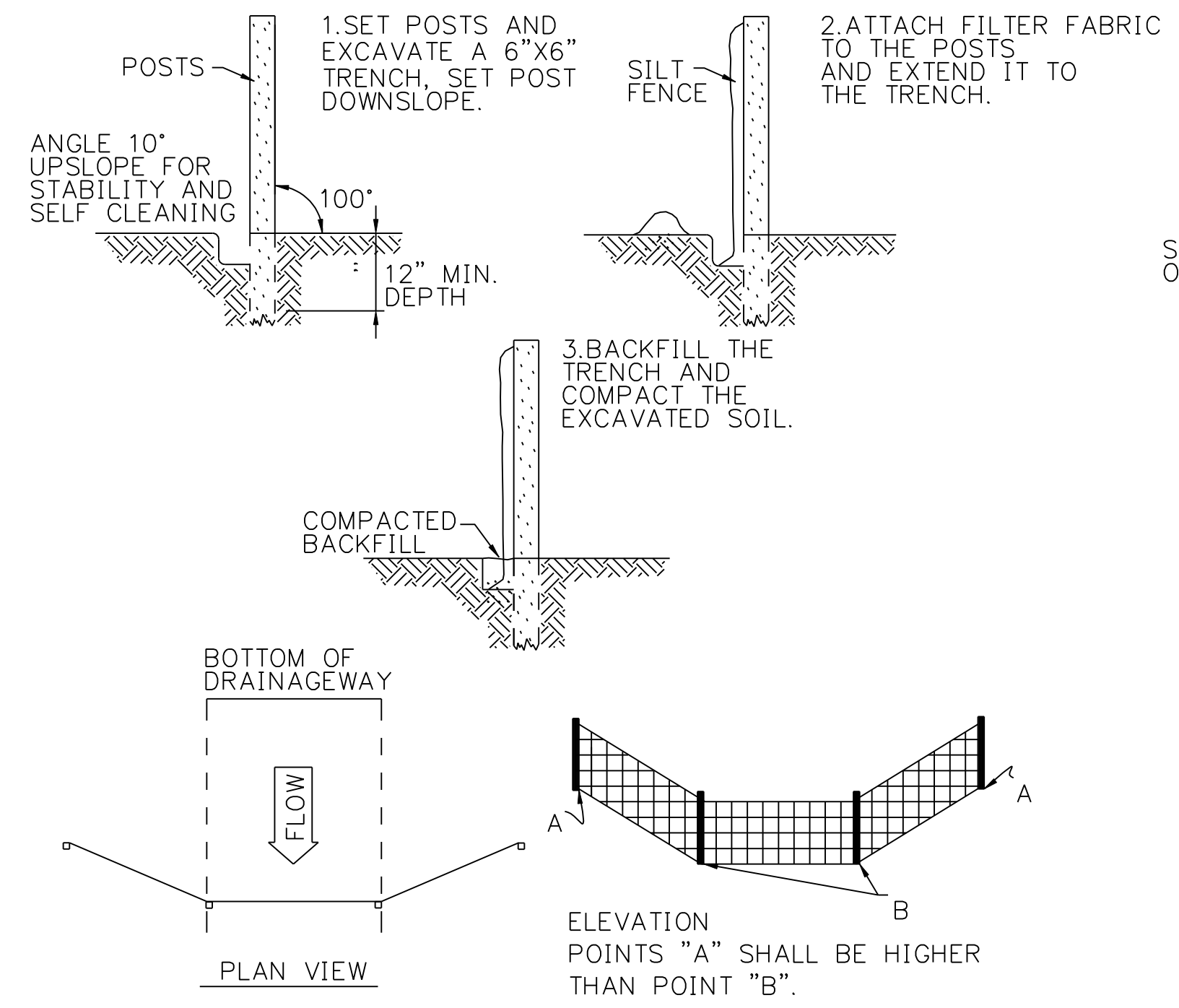
SILT FENCE INSTALLATION AT CATCH BASINS AT LOW POINTS

HAY BALE FILTER INSTALLATION AT CATCH BASIN AT LOW POINTS

STORMWATER INLETS WHICH DO NOT DISCHARGE TO SEDIMENT TRAPS OR BASINS, SHALL BE PROTECTED UNTIL THE TRIBUTARY AREAS ARE STABILIZED. SEDIMENT SHALL BE REMOVED FROM INLET PROTECTION AFTER EACH STORM EVENT.

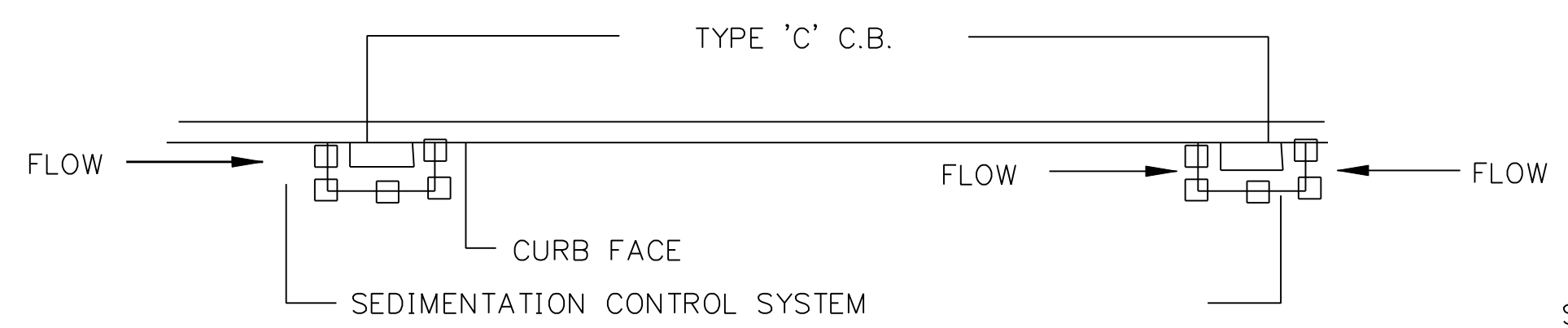
CATCH BASIN EROSION CONTROL

DETAIL NTS 1



GEOTEXTILE SILT FENCE BARRIER W/OUT HAYBALES

DETAIL NTS 6

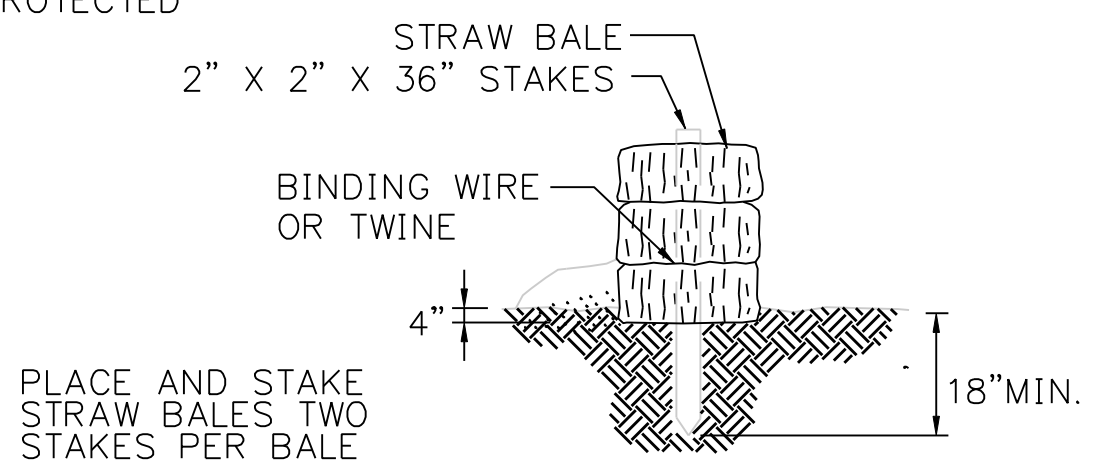


PLAN FOR TYPE 'C' C.B (ON GRADE)

PLAN FOR TYPE 'C' C.B (AT LOW POINT)

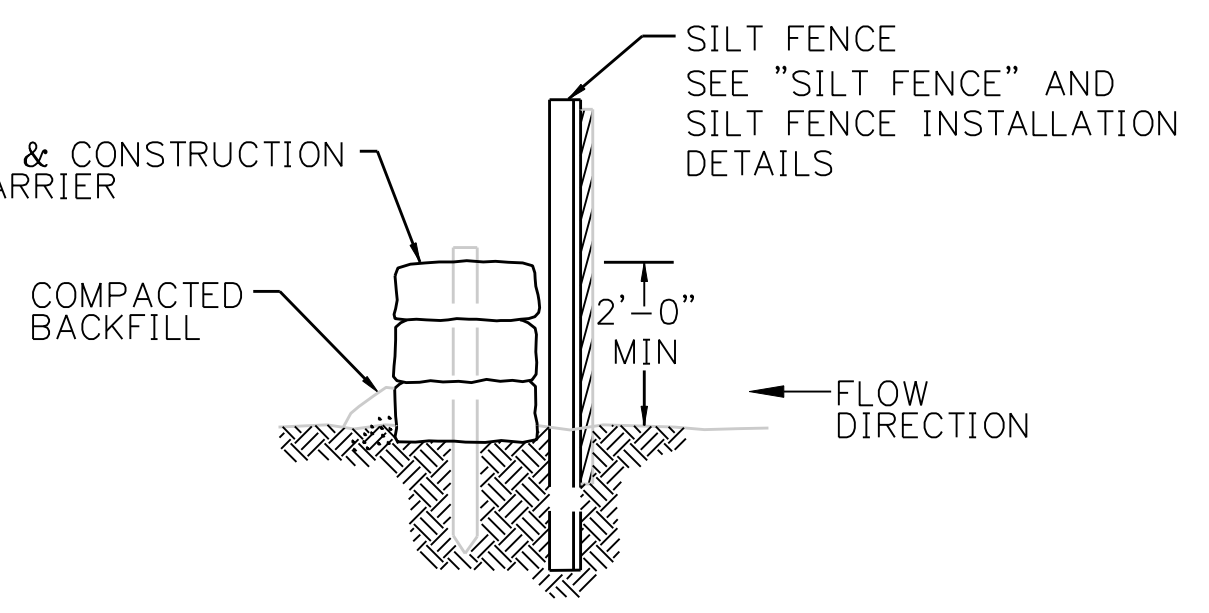
NOTE: SEDIMENTATION CONTROL SYSTEMS SHALL BE LOCATED AT ALL EXISTING OR PROPOSED BASINS WHICH ACCEPT FLOW FROM THE CONSTRUCTION AREA UNTIL TURF ESTABLISHMENT OR AS DIRECTED BY THE ENGINEER.

DETAIL NTS 2



STRAW BALE BARRIERS SHALL NOT BE USED FOR MORE THAN 3 MONTHS. SEDIMENT SHALL BE REMOVED WHEN ACCUMULATIONS REACH 1/3 THE ABOVE GROUND HEIGHT OF THE BARRIER.

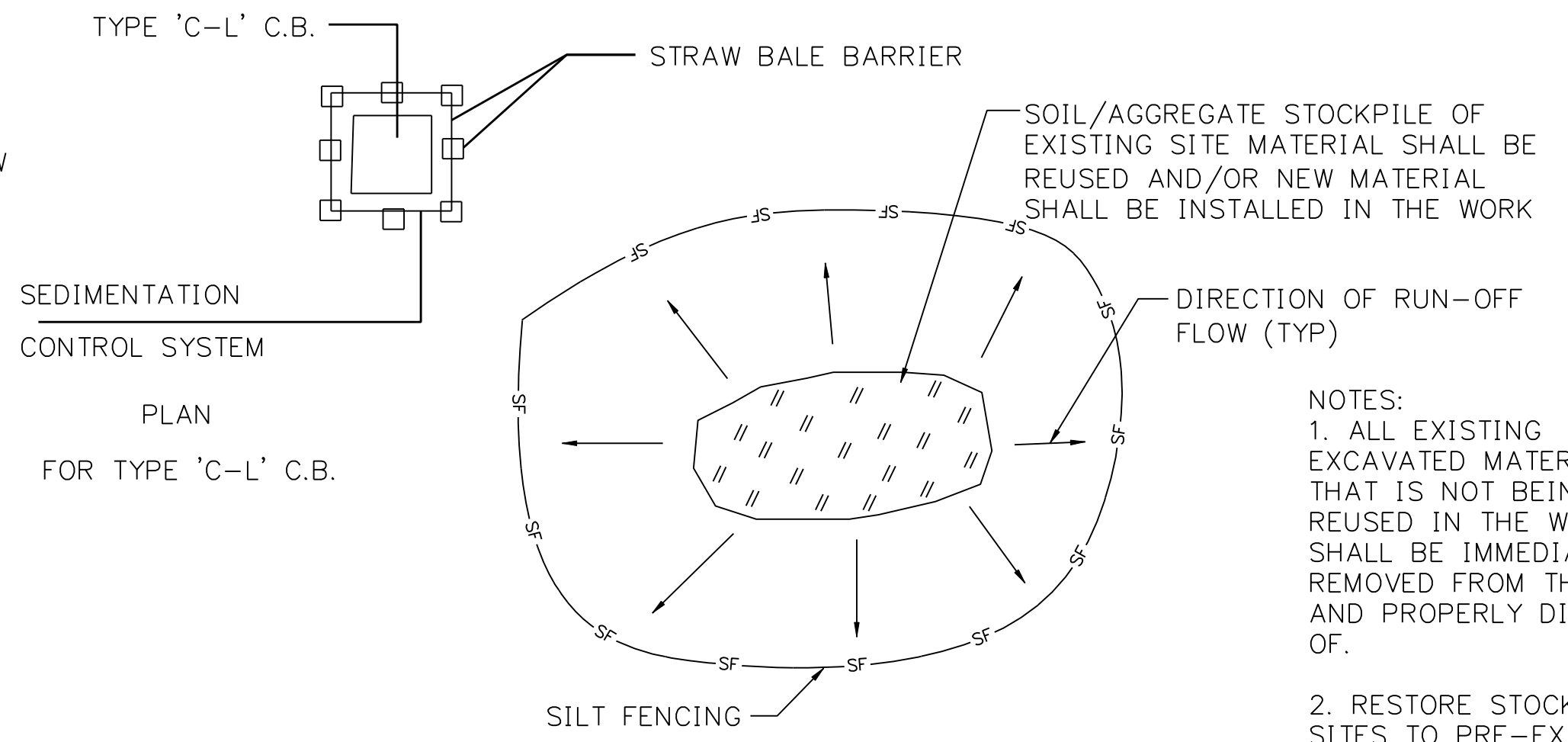
DETAIL NTS 4



BACKFILL AND COMPACT THE EXCAVATED SOIL AS SHOWN ON THE UPHILL SIDE OF THE BARRIER TO PREVENT PIPING.

GEOTEXTILE SILT FENCE BARRIER W/ HAYBALES

DETAIL NTS 7



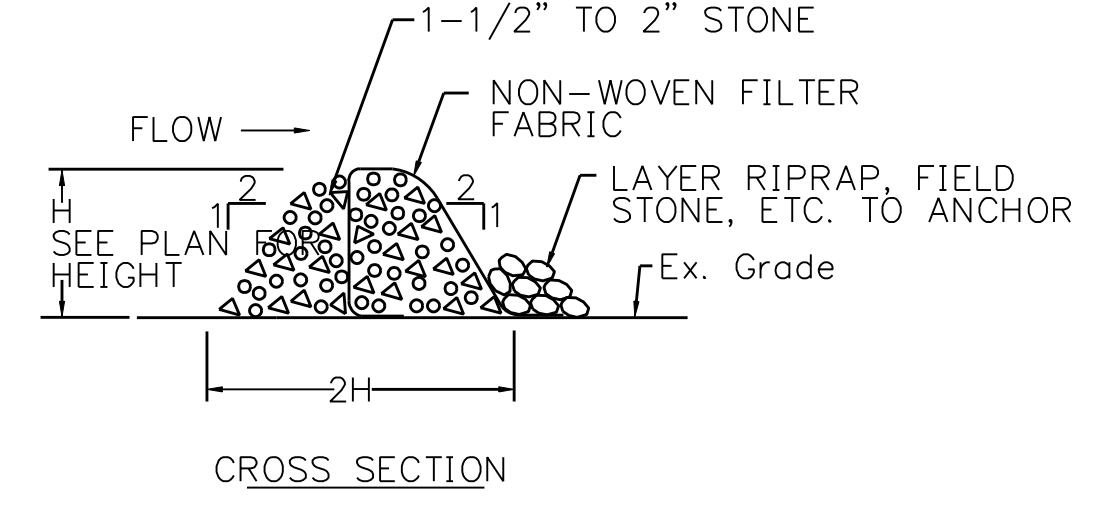
PLAN FOR TYPE 'C-L' C.B.

MATERIALS STOCKPILE

DETAIL NTS 3

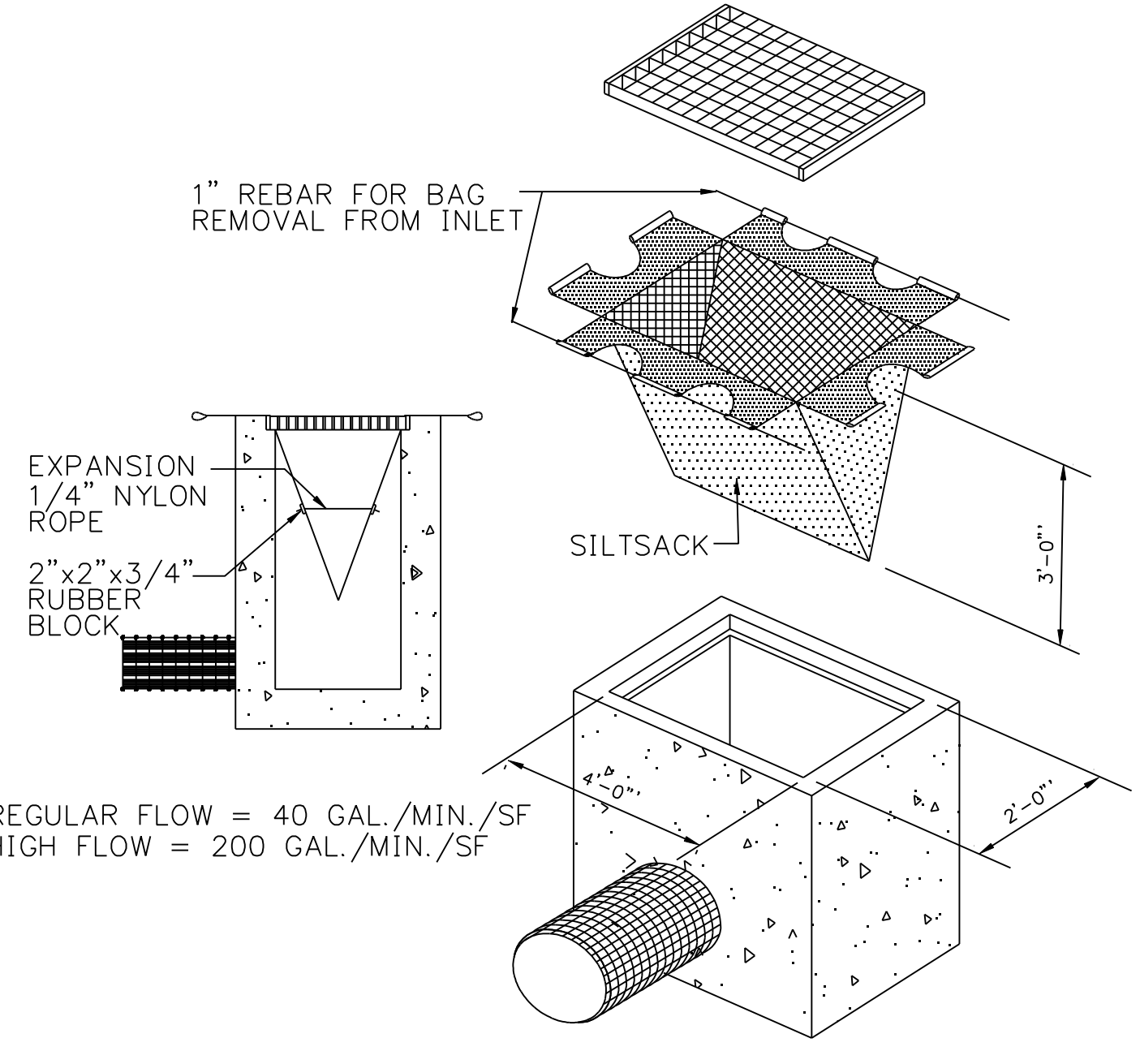
NOTES:
1. ALL EXISTING EXCAVATED MATERIAL THAT IS NOT BEING REUSED IN THE WORK SHALL BE IMMEDIATELY REMOVED FROM THE SITE AND PROPERLY DISPOSED OF.
2. RESTORE STOCKPILE SITES TO PRE-EXISTING PROJECT CONDITION AND RESEED AS REQUIRED.
3. STOCKPILE HEIGHTS SHALL NOT EXCEED 35'. STOCKPILE SLOPES SHALL BE 2:1 OR FLATTER.

NOTE: USE FOR IN-STREAM OR SWALE SEDIMENT INTERCEPTION. LOCATE NOT TO BACKWATER ONTO WORK AREA.



STONE FILTER BERM W/ FILTER FABRIC

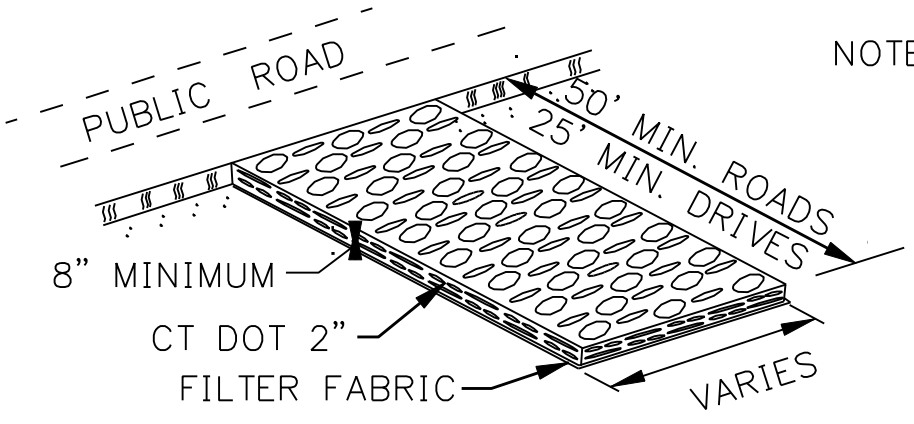
DETAIL NTS 5



NOTE: REGULAR FLOW = 40 GAL./MIN./SF
HIGH FLOW = 200 GAL./MIN./SF

SILTSACK

DETAIL NTS 9



CONSTRUCTION ENTRANCE

DETAIL NTS 8

ISSUED FOR CONSTRUCTION

DOCKET No. 272



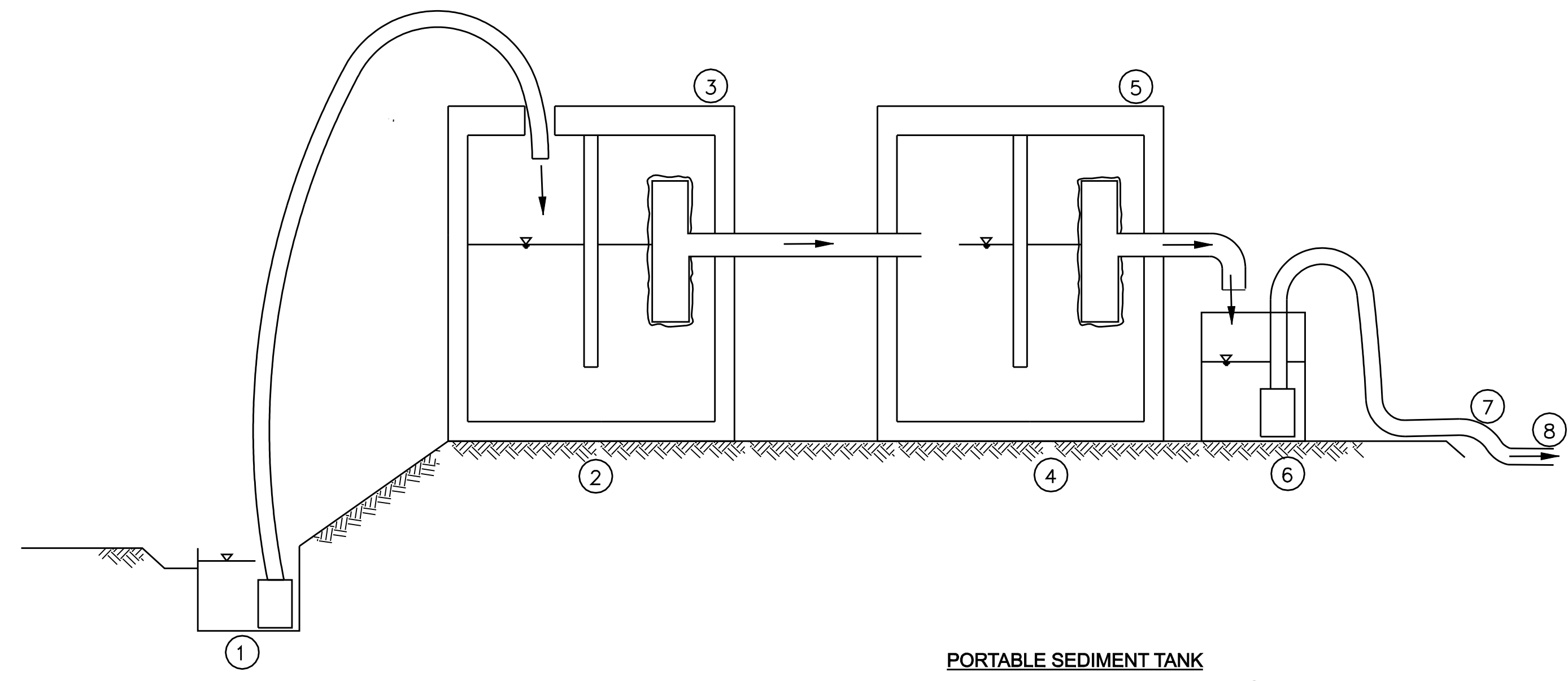
date 10/11/05
designed BL COMPANIES
checked S. NEWLAND

no.	date	revisions	by	chk
1	5/10/07	ISSUED CSC REVISED	CTC	

MF	NO.	DATE	REVISIONS	BY	CHK	APP	APP

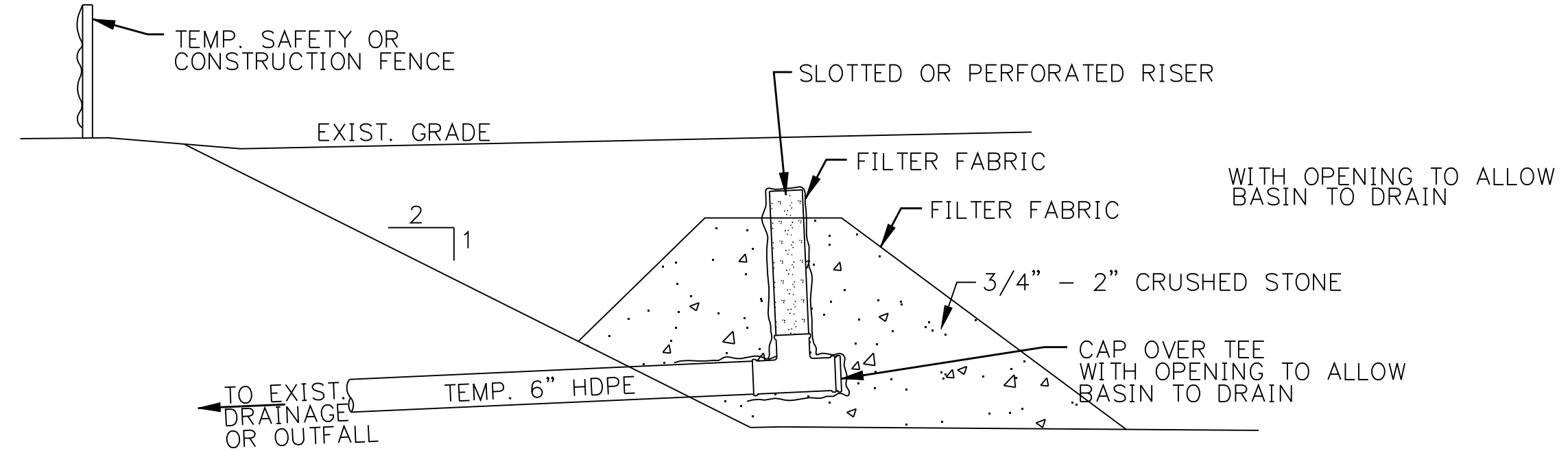
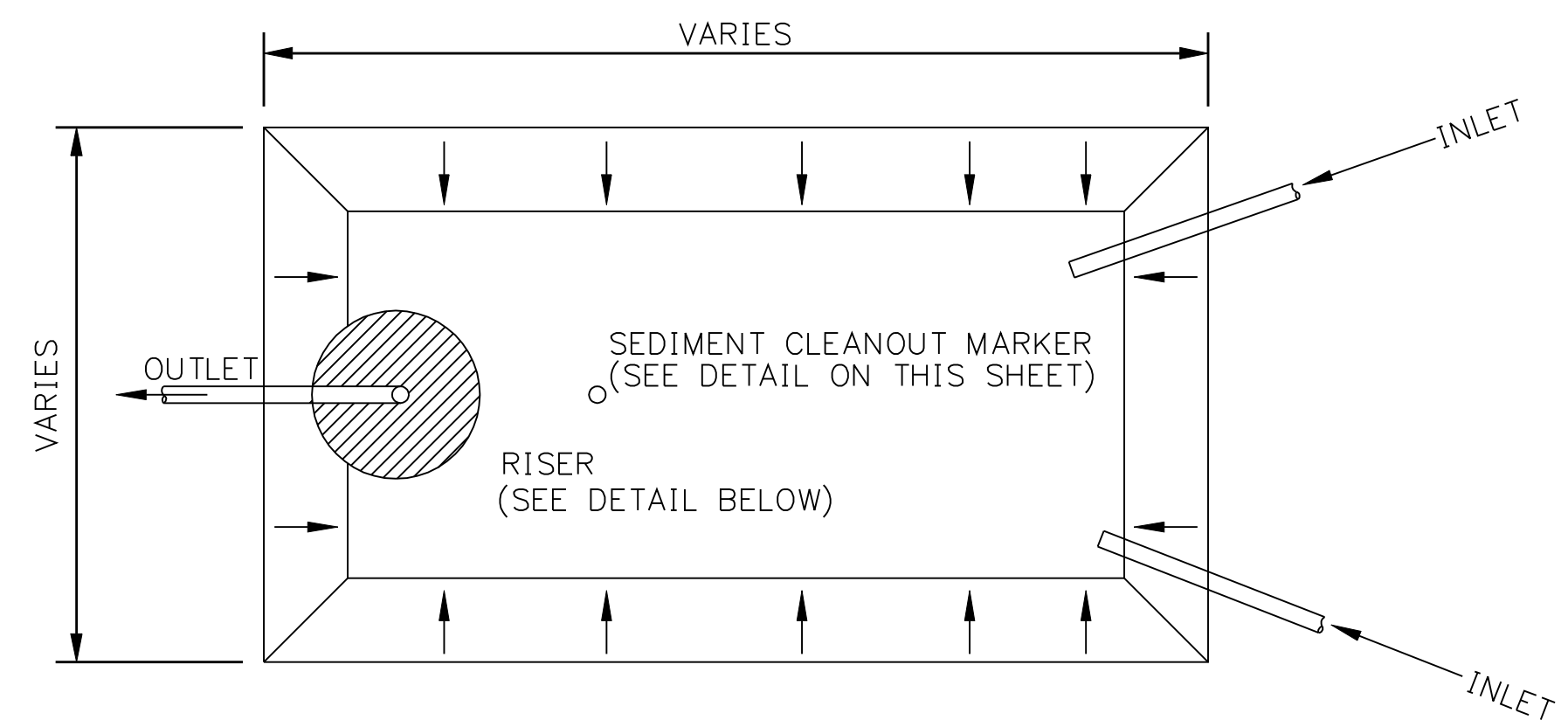
NORTHEAST UTILITIES SERVICE CO.			
FOR THE CONNECTICUT LIGHT & POWER COMPANY			
TITLE MIDDLETOWN-NORWALK 345KV TRANSMISSION PROJECT			
EROSION CONTROL DETAILS			
BY SEN-BMCD	CHKD	APP	APP
DATE 10-11-05	DATE	DATE	DATE
SCALE AS NOTED	D	DWG. NO. 01223-15003	PG 001

COPYRIGHT © 2007 BURNS & MCDONNELL ENGINEERING COMPANY, INC.

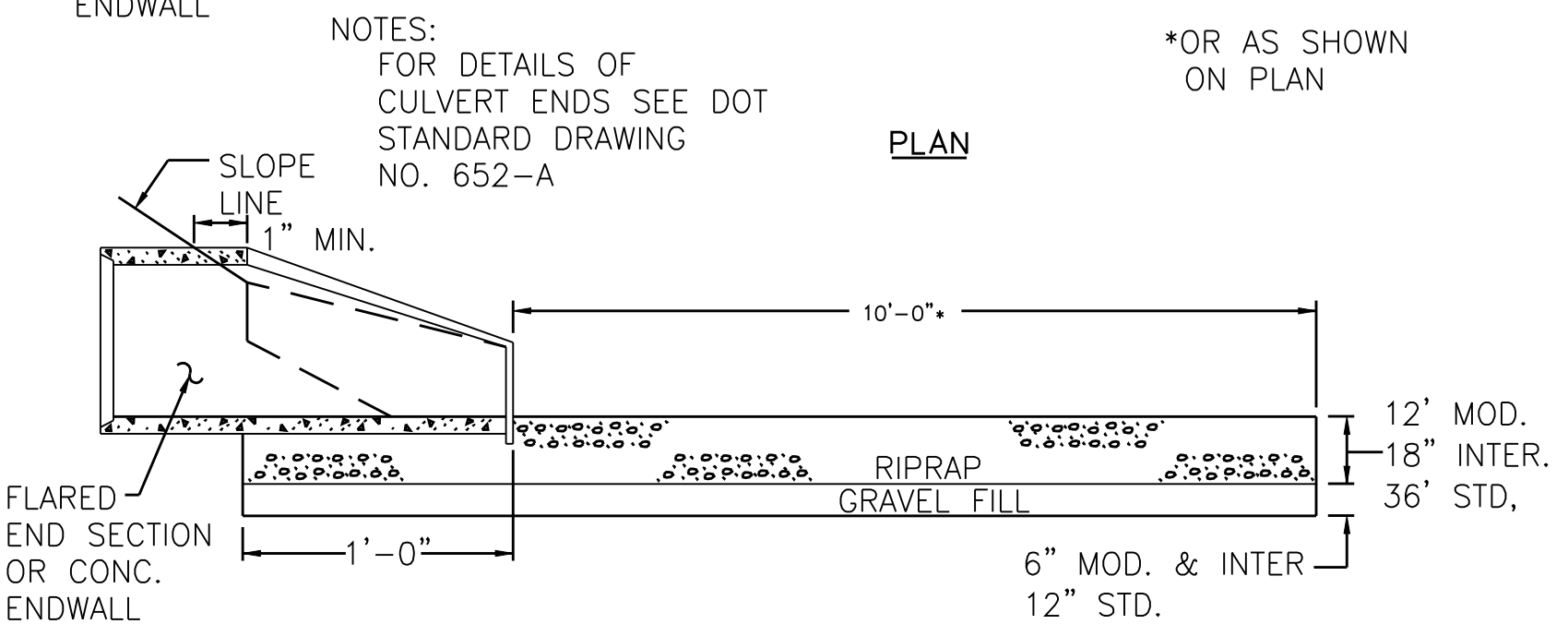
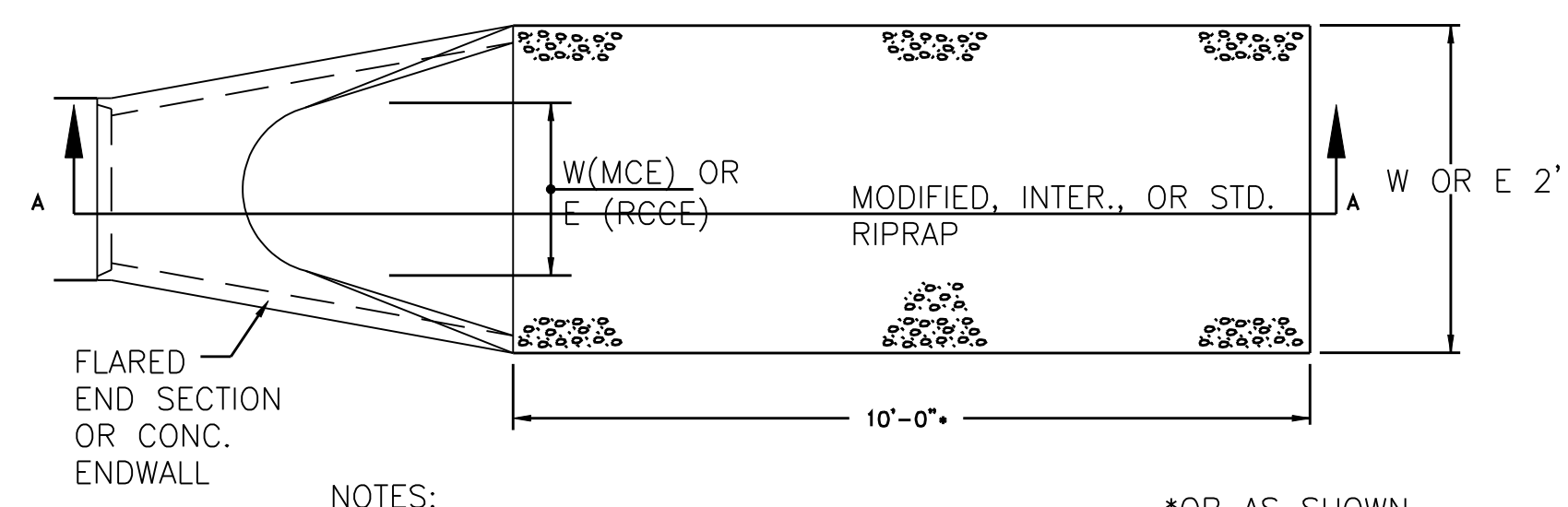


- NOTES
- ①. 20 GPM TRASH PUMP DEWATERS FOUNDATION EXCAVATION
 - ②. MUDDY WATER DISCHARGES TO 1,250 GAL SEPTIC TANK (OR DET. OUTLET STRUCTURE)
 - ③. 4" TEE OUTLET WRAPPED W/ FILTER FABRIC
 - ④. 1,250 GAL CLEAR WELL
 - ⑤. 2ND 4" TEE OUTLET WRAPPED W/ FILTER FABRIC
 - ⑥. 2ND PUMP IN 55 GAL DRUM (OR GRAVITY HOSE) DRAINS SYSTEM
 - ⑦. TEMP. OUTLET TO CATCH BASIN IN STREET
 - ⑧. 2-1,250 GAL. TANKS = 2,500 GAL. CAPACITY TOTAL

PORTABLE SEDIMENT TANK
 DETAIL NTS ①

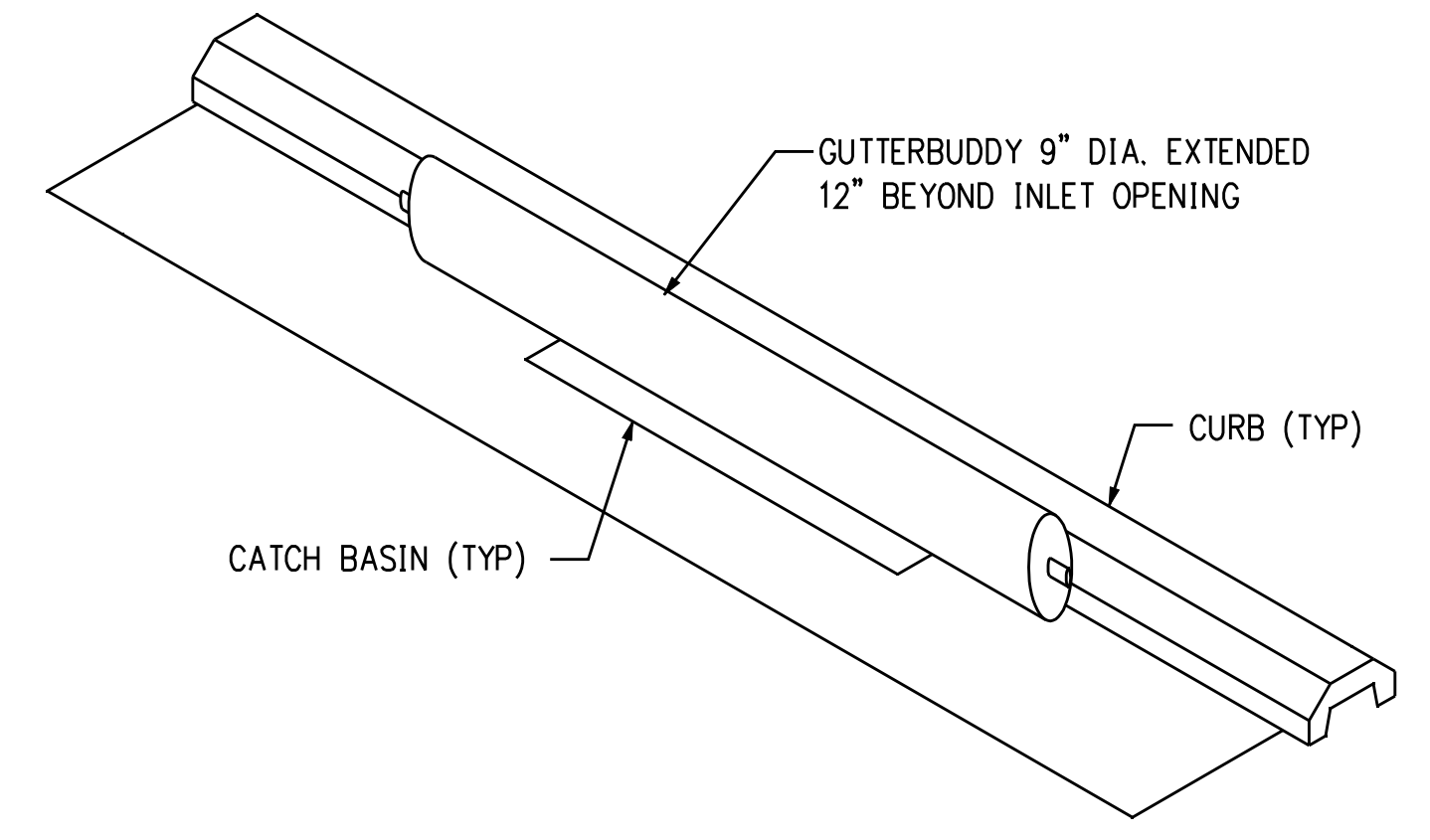


TEMPORARY SEDIMENT TRAP
 DETAIL NTS ②



RIPRAP TYPE "T" (INCHES)	THICKNESS (INCHES)
INTERMEDIATE	18
MODIFIED	12
STANDARD	36

LEVEL SPREADER
 DETAIL NTS ③



GUTTERBUDDY STORM DRAIN
 DETAIL NTS ④

COPYRIGHT © 2007 BURNS & MCDONNELL ENGINEERING COMPANY, INC.

DOCKET No. 272

ISSUED FOR CONSTRUCTION



date 10/11/05
 detailed BL COMPANIES
 designed BL COMPANIES
 checked S. NEWLAND

no.	date	revisions	by	chk
1	5/10/07	ISSUED CSC REVISED	CTC	

MF	NO.	DATE	REVISIONS	BY	CHK	APP	APP

NORTHEAST UTILITIES SERVICE CO.			
FOR THE CONNECTICUT LIGHT & POWER COMPANY			
TITLE MIDDLETOWN-NORWALK 345KV TRANSMISSION PROJECT			
EROSION CONTROL DETAILS			
BY SEN-BMCD	CHKD	APP	APP
DATE 10-11-05	DATE	DATE	DATE
SCALE AS NOTED	D	DWG. NO. 01223-15003	PG 002