

CITY OF ST. PAUL
 Department of Public Works
 CONSTRUCTION PLAN
 for
 RESIDENTIAL STREET PAVING AND LIGHTING

BURLINGTON ROAD
 from
 TOTEM ROAD TO TOTEM ROAD
 and
 TOTEM ROAD
 from

BURLINGTON ROAD TO LOWER AFTON ROAD
 CITY PROJECT NO. 06-P-1280
 includes

GRADING, CURB AND GUTTER, AGGREGATE BASE,
 BITUMINOUS PAVING, STORM SEWER AND STREET LIGHTING

LONDIN LANE
 from

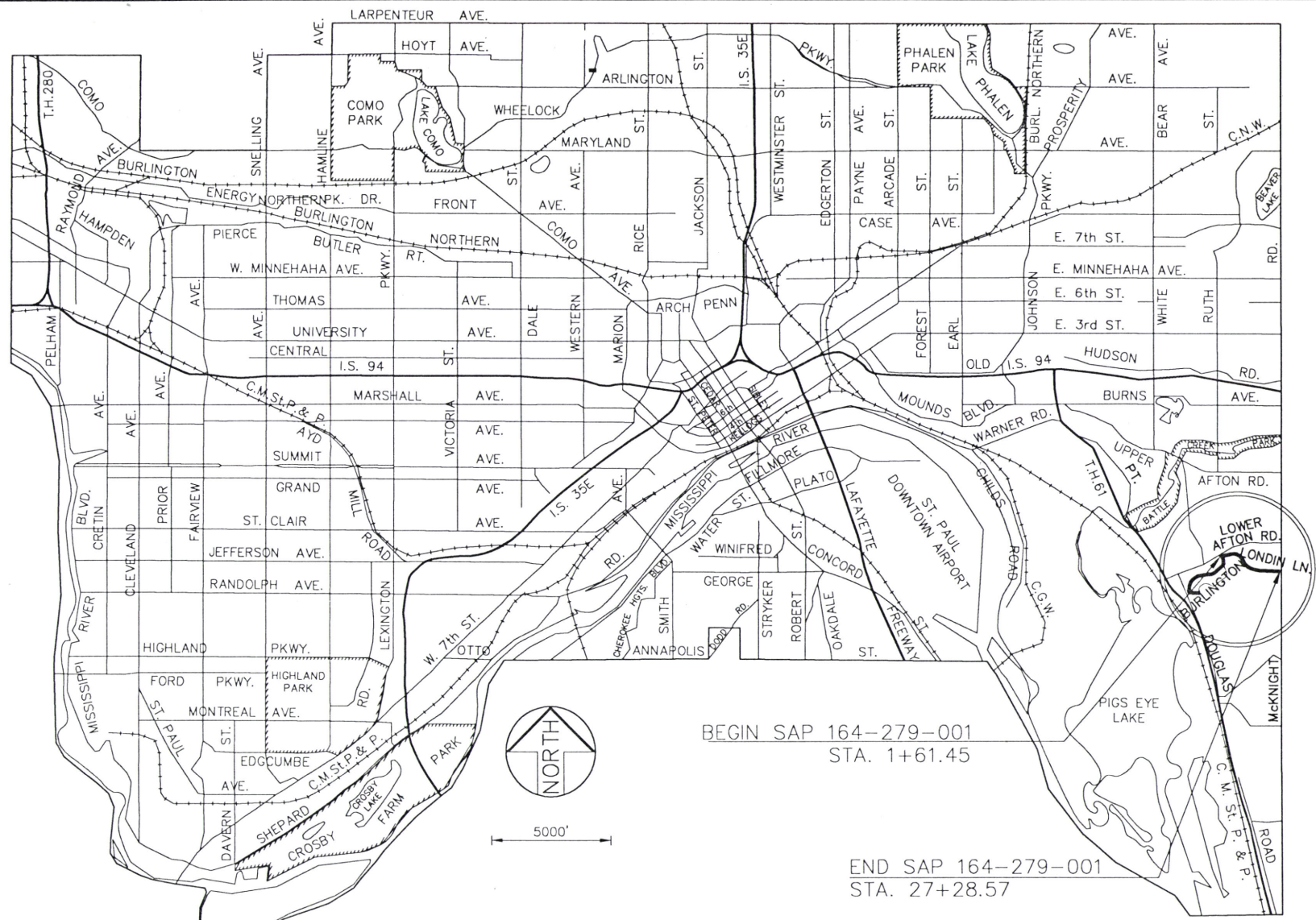
LOWER AFTON ROAD TO MCKNIGHT ROAD
 M.S.A. PROJECT NO. 164-279-001
 CITY PROJECT NO. 06-P-1280

includes
 GRADING, CURB AND GUTTER, AGGREGATE BASE,
 BITUMINOUS PAVING, STORM SEWER AND STREET LIGHTING

GROSS LENGTH	2567.12 FEET	0.486 MILES
BRIDGES LENGTH	0 FEET	0.00 MILES
EXCEPTIONS LENGTH	0 FEET	0.00 MILES
NET LENGTH	2567.12 FEET	0.486 MILES

DESIGN DESIGNATION

PRESENT ADT (2006)	1,450
PROJECTED ADT (2026)	2,175
FUNCTIONAL CLASSIFICATION:	COLLECTOR
NO. OF TRAFFIC LANES	2
NO. OF PARKING LANES	0
R VALUE	10
EN18 FACTOR	536,762
DESIGN LOAD (TON)	9
DESIGN SPEED (MPH)	30
DESIGN SPEED NOT ACHIEVED AT LONDIN LANE STATION 2+18.67 TO STATION 3+11.72 (STOP CONDITION)	
STOPPING SIGHT DISTANCE BASED ON:	3.5' HEIGHT OF EYE & 2.0' HEIGHT OF OBJECT



SPECIFICATIONS

THE 2000 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN. THESE SHALL BE FURTHER AMENDED BY THE CITY OF SAINT PAUL "STANDARD SUPPLEMENTAL SPECIFICATIONS FOR CONSTRUCTION" AND THE SPECIAL PROVISIONS.

ALL TRAFFIC CONTROL DEVICES AND SIGNING SHALL CONFORM TO THE LATEST EDITION OF THE MUTCD, INCLUDING "FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS"

SEWER

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

TYPED OR PRINTED NAME: **JOSEPH J. MOELLER**
 SIGNED: *Joseph J. Moeller*
 DATE: 5/23/06 LIC. NO. 13942

LIGHTING

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

TYPED OR PRINTED NAME: **Brian Vittek**
 SIGNED: *Brian Vittek*
 DATE: 5/23/06 LIC. NO. 40444

PLAN SHEET INDEX

1. TITLE SHEET
2. LEGEND AND PLAN SHEET LOCATION MAP
3. STATEMENT OF ESTIMATED QUANTITIES
4. EXISTING SEWER CHART
5. SEWER CONSTRUCTION CHART
- 6-7. TYPICAL SECTIONS
- 8.-10. STANDARD DETAIL PLATES, CONSTRUCTION DETAILS
11. PEDESTRIAN RAMP DETAILS
12. EROSION AND SEDIMENT CONTROL PLAN
- 13.-24. PAVING PLANS
- L1.-L10. STREET LIGHTING PLANS

THIS PLAN CONTAINS 34 SHEETS

28-436

APPROVED: *David A. Heath* DATE: 5/23/06
 Manager Street Engineering/Construction Division

APPROVED: *Randy H. Luth* DATE: 5/23/06
 Saint Paul City Engineer
 Assoc.

APPROVED: _____ DATE: _____
 Ramsey County Engineer

RECOMMENDED FOR APPROVAL: _____ DATE: _____
 District State Aid Engineer: Reviewed for Compliance with State Aid Rules/Policy

APPROVED FOR STATE AID DIVISION: _____ DATE: _____
 Approved for State Aid Funding: State Aid Engineer

\\Atlantis\STP-PWUsers\StreetEng\Barbaram\My Documents\Home\Barbaram\Land Projects\3\LONDIN LANE\LB-title.dwg May 23, 2006 1:43pm

	DESIGNED	BRM	I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA Signature: <i>Barbara R. Mundahl</i> Date: 5/23/06 Lic. No. 43099	PREPARED BY	STREET ENGINEERING DIVISION FOR THE CITY OF ST. PAUL, DEPARTMENT OF PUBLIC WORKS	PROJECT:	06-P-1280	STATE AID PROJECT NUMBER:	164-279-001
	DRAWN	BRM		LONDIN LANE/BURLINGTON ROAD	DRAWER:	12	CAD NAME:	PROJECTS/CURRENT/LB-TITLE	
	APPROVED	BRM		DWG. NO.	1499	DATE:	5/23/06	SHEET NO.	1 OF 24 SHEETS

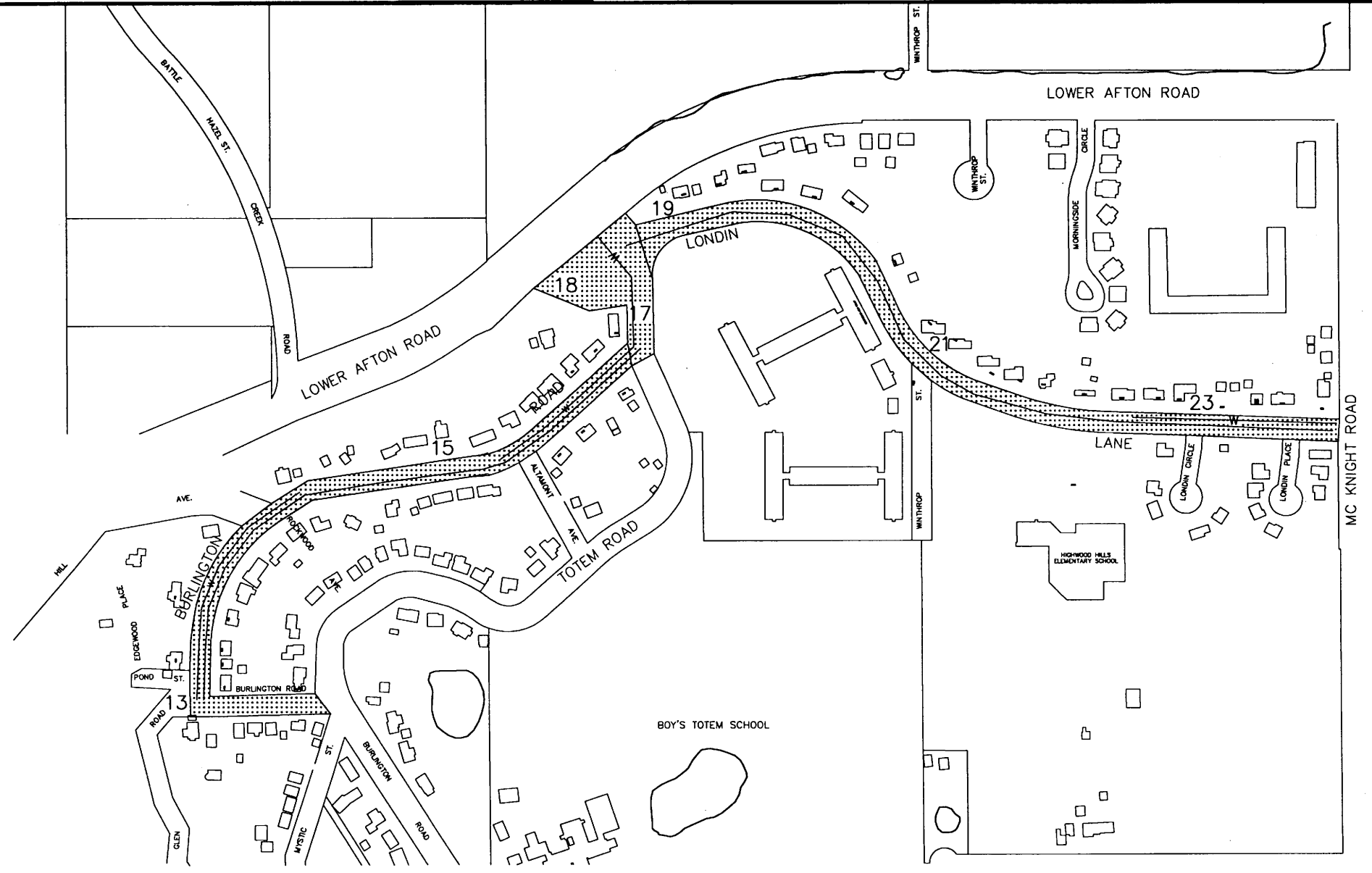
EXISTING & REMOVAL LEGEND

- | | | | |
|--|---|--|----------------|
| | EXISTING CURB & GUTTER | | ASPHALT DRIVE |
| | EXISTING CURB | | CONCRETE DRIVE |
| | EXISTING WALK | | DIRT DRIVE |
| | HYDRANT | | GRAVEL DRIVE |
| | UTILITY POLE | | BRICK DRIVE |
| | LIGHT STANDARD | | |
| | TRAFFIC SIGNAL | | |
| | PULLBOX | | |
| | UTILITY MANHOLE | | |
| | EXISTING SURVEY MONUMENT | | |
| | EXISTING MANHOLE (NO. REFERS TO EXISTING SEWER CHART) | | |
| | EXISTING CATCH BASIN (NO. REFERS TO EXISTING SEWER CHART) | | |
| | EXISTING SIDE INLET | | |
| | EXISTING SEWER | | |
| | EXISTING PIPE OR C.B. LEAD, CONSTR. 8" BRICK BULKHEAD | | |
| | EXISTING UTILITY GATE VALVE | | |
| | EXISTING WATER VALVE | | |
| | EXISTING WATER MAIN | | |
| | EXISTING GAS MAIN | | |
| | EXISTING CONDUIT (L=LIGHTING, T=TELEPHONE, E=ELECTRIC, T.S.=TRAFFIC SIGNAL, F.O.=FIBER OPTIC) | | |
| | EXISTING TREE (NO. REFERS TO SIZE) | | |
| | EXISTING CONCRETE STEPS | | |
| | EXISTING PROPERTY IRON | | |
| | REMOVE CONCRETE CURB AND GUTTER | | |
| | REMOVE CONCRETE CURB | | |
| | REMOVE CONCRETE WALK | | |
| | REMOVE CONCRETE DRIVE | | |
| | REMOVE TREE (NO. REFERS TO SIZE) | | |
| | REMOVE STUMP | | |
| | REMOVE PAVEMENT OR TRENCH PAVEMENT | | |

CONSTRUCTION LEGEND

- | | |
|--|---|
| | CONSTRUCT PAVEMENT (SEE TYPICAL SECTIONS) |
| | BITUMINOUS OVERLAY |
| | PAVEMENT OR TRENCH PAVEMENT RESTORATION |
| | CONSTRUCT CURB (SEE TYPICAL SECTION FOR TYPE) |
| | CONSTRUCT CURB & GUTTER (SEE TYPICAL SECTION FOR TYPE) |
| | ADJUST MANHOLE (NO. REFERS TO EXISTING SEWER CHART) |
| | ADJUST UTILITY MANHOLE |
| | CONSTRUCT CONCRETE WALK (4" THICK MAINLINE WALK AND OUTWALKS) (6" THICK IN PEDESTRIAN RAMP AREAS) |
| | CONSTRUCT CONCRETE DRIVEWAY PAVEMENT (TYPE 6) 6" THICK UNLESS OTHERWISE NOTED. |
| | ADJUST WATER GATE VALVE HOUSING |
| | PEDESTRIAN CURB RAMP |
| | CONSTRUCT CATCH BASIN (NO. REFERS TO SEWER CONST. CHART) |
| | CONSTRUCT CATCH BASIN LEAD (12" DIA. UNLESS OTHERWISE NOTED) |
| | NEW MANHOLE- TYPE AS NOTED (NO. REFERS TO SEWER CONST. CHART) |
| | NEW TYPE IV OR IV-A MANHOLE MANHOLE (NO. REFERS TO SEWER CONST. CHART) |
| | CONSTRUCT POSSIBLE SANITARY SERVICE RECONNECTION |
| | LEAD WATER SERVICE |

The subsurface utility information in this plan is utility level D. This quality level was determined according to the guidelines of CI/ASCE 38-.2, entitled "Standard Guidelines for the Collection and Depiction of Existing Subsurface Utility Data."



NOTES

1. WATER, GAS, ELECTRIC, TELEPHONE COMMUNICATION, SEWER AND T.V. CABLE LINES SHOWN ON THE DRAWINGS AND CROSS-SECTIONS ARE PLOTTED FROM THE BEST INFORMATION AVAILABLE AT THE TIME OF PLAN PREPARATION, BUT MAY NOT REFLECT ACTUAL LOCATIONS OR ELEVATIONS. THE CONTRACTOR SHALL VERIFY LOCATIONS OF ALL UTILITIES BEFORE BEGINNING CONSTRUCTION WHICH MAY BE AFFECTED BY A UTILITY CONFLICT. THE CONTRACTOR SHALL GIVE 48 HOURS NOTICE TO THE OWNERS OF ALL KNOWN UTILITIES BEFORE STARTING ANY OPERATIONS AFFECTING THOSE PROPERTIES, OR BEGINNING EXCAVATION IN THE VICINITY OF THOSE PROPERTIES. THE CONTRACTOR'S ATTENTION IS DIRECTED TO SECTION 1507 IN THE STANDARD SPECIFICATIONS.
2. ALL CURB RADII 20 FEET UNLESS OTHERWISE NOTED.
3. 12" CATCH BASIN LEADS TO BE CLASS V
15" CATCH BASIN LEADS TO BE CLASS V
4. WHERE EXISTING UTILITIES ARE IN CONFLICT WITH SEWER CONSTRUCTION, THE UTILITY COMPANY WILL RELOCATE, OFFSET OR SUPPORT THE UTILITY UNLESS OTHERWISE INDICATED ON THE PLAN SHEET OR STATED IN THE SPECIAL PROVISIONS.
5. WHERE EXISTING FIRE HYDRANTS AND/OR LIGHT STANDARDS CONFLICT WITH SEWER CONSTRUCTION, THEY WILL BE RELOCATED BY OTHERS.
6. GAS MAINS SHOWN ON THE PLAN SHEETS ARE EXISTING MAINS. IN CONJUNCTION WITH THIS SEWER AND PAVING PROJECT, XCEL ENERGY MAY ABANDON SOME OF THE GAS MAINS IN THE AREA AND CONSTRUCT NEW MAINS IN THE SIDEWALK AREA.
7. SOIL CLASSIFICATION SHOWN ON SOIL BORINGS IS ACCORDING TO A.S.T.M. DESIGNATION D2487 "STANDARD TEST METHOD FOR CLASSIFICATION OF SOILS FOR ENGINEERING PURPOSES".
8. ALL CONCRETE WALK IN QUADRANT AREAS AT THE CORNERS OF INTERSECTIONS SHALL BE 6" THICK.
9. RECORDS INDICATE THERE ARE SEVERAL PROPERTY IRONS IN THE PROJECT AREA. DO NOT DISTURB THESE IRONS DURING REMOVAL OPERATIONS. IF REMOVED, REPLACEMENT BE A LICENSED SURVEYOR, AT THE CONTRACTOR'S EXPENSE.



- | | |
|----|---|
| 15 | PLAN SHEET NUMBER |
| | STREET PAVING |
| | STREET PAVING & WATER MAIN REPLACEMENT |
| | STREET PAVING & STORM SEWER MAIN CONSTRUCTION |

28-436

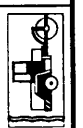
LEGEND
LOCATION AREA MAP

\\atlantis\stp-pw\user\barbaram\My Documents\Home\barbaram\Lead Projects\3\LONDIN LANE.dwg - legend.dwg May 22, 2006 - 3:37pm

	DESIGNED	BRM	I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA	PREPARED BY STREET ENGINEERING DIVISION FOR THE CITY OF ST. PAUL, DEPARTMENT OF PUBLIC WORKS
	DRAWN	BRM		
	APPROVED	BRM	Signature: <i>Barbara R. Munda</i> BARBARA R. MUNDAHL	Date: 6/22/06 Lic. No. 43099

LONDIN LANE/BURLINGTON ROAD


PROJECT: 06-P-1280	STATE AID PROJECT NUMBER: 164-279-001
DRAWER: 12	CAD NAME: PROJECTS/CURRENT/LB-LEGEND
DWG. NO. 1499	DATE: 5/22/06 SHEET NO. 2 OF 24 SHEETS



STATEMENT OF ESTIMATED QUANTITIES									
ITEM NO.	ITEM	UNIT	Burlington/ Totem Road	Londin Lane S.A.P. 164-279-001	Londin Lane Storm Sewer 164-279-001	WATER Non-Participating	Storm Sewer Non-Participating	TOTAL	
			QUANTITIES	QUANTITIES	QUANTITIES	QUANTITIES	QUANTITIES	QUANTITIES	QUANTITIES
2013.602	COORDINATION OF SURVEY MONUMENT RESETING	EACH	0	3	0	0	0	0	3
2021.501	MOBILIZATION	LUMP SUM	0.40	0.4	0.0	0.1	0.1	1	1
2031.501	FELD OFFICE, TYPE D	EACH	0.40	0.4	0.0	0.1	0.1	1	1
2101.502	CLEARING	TREE	25	35	0	0	0	60	60
2101.507	GRUBBING	TREE	26	35	0	0	0	61	61
2104.501	REMOVE CONCRETE CURB OR CURB & GUTTER	LN. FT.	33	190	0	0	0	223	223
2104.501	REMOVE FENCE	LN. FT.	0	100	0	0	0	100	100
2104.501	REMOVE GUARDRAIL	LN. FT.	64	0	0	0	0	64	64
2104.501	REMOVE SEWER PIPE	LN. FT.	0	0	0	0	547	547	547
2104.503	REMOVE CONCRETE WALK	SQ. FT.	0	283	0	0	0	283	283
2104.505	REMOVE CONCRETE DRIVEWAY PAVEMENT	SQ. YD.	125	95	0	0	0	220	220
2104.505	REMOVE TRENCH PAVEMENT	SQ. YD.	187	0	0	0	0	187	187
2104.509	REMOVE CATCH BASIN OR MANHOLE	EACH	9	2	0	0	0	11	11
2104.509	REMOVE AND DISPOSE OF LIGHT BASE FOUNDATION	EACH	1	0	0	0	0	1	1
2104.509	REMOVE LIGHT STANDARD/LUMINAIRE	EACH	1	0	0	0	0	1	1
2104.509	REMOVE MAILBOX AND SUPPORT	EACH	43	27	0	0	0	70	70
2104.521	SALVAGE GUARDRAIL	LN. FT.	64	0	0	0	0	64	64
2104.521	SALVAGE FENCE	LN. FT.	0	100	0	0	0	100	100
2104.523	SALVAGE LIGHT STANDARD/LUMINAIRE	EACH	1	0	0	0	0	1	1
2104.523	SALVAGE MAILBOX AND SUPPORT	EACH	43	27	0	0	0	70	70
2105.501	COMMON EXCAVATION (P)	CU. YD.	800	6,004	0	0	0	6,804	6,804
2105.507	SUBGRADE EXCAVATION	CU. YD.	1,990	0	0	0	0	1,990	1,990
2105.525	TOPSOIL BORROW (L.V.)	CU. YD.	744	662	0	0	0	1,406	1,406
2105.607	CONSTRUCT EMBANKMENT (C.V.)	CU. YD.	20	0	20	0	0	40	40
2105.609	GRANULAR BORROW	TON	3,600	200	0	0	0	3,800	3,800
2118.501	AGGREGATE SURFACING, CLASS 5	TON	20	32	0	0	0	52	52
2123.610	STREET SWEEPING	HOUR	10	20	0	0	0	30	30
2130.501	WATER	1000 GALLON	425	382	0	0	0	807	807
2211.503	AGGREGATE BASE PLACED (C.V.), CLASS 5 (P)	CU. YD.	1,930	3,234	0	0	0	5,164	5,164
2331.603	SAVED / SEALED JOINT	LN. FT.	2,800	2,700	0	0	0	5,500	5,500
2350.503	TYPE MV 3 WEARING COURSE MIXTURE, 2" THICK	SQ. YD.	90	280	0	0	0	370	370
2350.501	TYPE MV 3 WEARING COURSE MIXTURE	TON	619	620	0	0	0	1,239	1,239
2350.502	TYPE MV 3 NON WEARING COURSE MIXTURE	TON	210	827	0	0	0	1,037	1,037
2350.502	TYPE LV 3 NON WEARING COURSE MIXTURE	TON	976	1,447	0	0	0	2,423	2,423
2357.502	BITUMINOUS MATERIAL FOR TACK COAT	GALLON	1,035	1,008	0	0	0	2,041	2,041
2411.618	MODULAR BLOCK RETAINING WALL	SQ. FT.	0	800	0	0	0	800	800
2551.511	COARSE FILTER AGGREGATE (LV)	CU. YD.	48	0	47	0	0	95	95
2451.607	GRANULAR BACKFILL	CU. YD.	0	0	0	2,715	0	2,715	2,715
2451.609	GRANULAR BEDDING AND/OR FOUNDATION	TON	0	0	0	1,358	0	1,358	1,358
2501.602	TRASH GUARD FOR 12" RCP APRON	EACH	1	0	0	0	0	1	1
2502.541	6" PERFORATED PIPE DRAIN	LN. FT.	74	0	74	0	0	148	148
2503.541	12" R.C. PIPE SEWER, DESIGN 3006, CLASS V	LN. FT.	414	0	444	0	302	1,160	1,160
2503.541	15" R.C. PIPE SEWER, DESIGN 3006, CLASS V	LN. FT.	27	0	217	0	195	439	439
2503.541	18" R.C. PIPE SEWER, DESIGN 3006, CLASS III	LN. FT.	0	0	0	0	571	571	571
2503.541	21" R.C. PIPE SEWER, DESIGN 3006, CLASS III	LN. FT.	0	0	2,323	0	410	2,733	2,733
2503.541	48" R.C. PIPE SEWER, DESIGN 3006, CLASS III	LN. FT.	0	0	0	0	273	273	273
2503.573	INSTALL 12" FLARED END SECTION, CLASS III	EACH	1	0	0	0	0	1	1
2503.602	SANITARY SEWER SERVICE REPAIR EXCAVATION	EACH	2	0	0	0	0	2	2
2503.603	SANITARY SEWER SERVICE REPAIR	LN. FT.	30	0	0	0	0	30	30
2503.603	SANITARY SEWER SERVICE RECONNECTION	LN. FT.	0	0	0	130	0	130	130
2504.602	REPAIR SERVICE STOP BOX	EACH	0	0	0	2	0	2	2
2504.602	REPLACE VALVE BOX	EACH	0	0	0	2	0	2	2
2504.602	ADJUST VALVE BOX	EACH	14	7	0	22	0	43	43
2504.602	WATER UTILITY HOLE	EACH	0	0	0	6	0	6	6
2504.603	WATER MAIN TRENCH	LN. FT.	0	0	0	2,240	0	2,240	2,240
2504.603	WATER SERVICE TRENCH	LN. FT.	0	0	0	20	0	20	20
2504.604	2" INSULATION	SQ. YD.	0	0	0	30	0	30	30
2506.516	CASTING ASSEMBLY	EACH	0	0	17	0	14	31	31
2506.522	ADJUST MANHOLE FRAME & RING CASTING	EACH	14	17	0	0	0	31	31
2506.602	CONSTRUCT MANHOLE, DESIGN TYPE IV	EACH	0	0	12	0	12	24	24
2506.602	CONSTRUCT MANHOLE, DESIGN TYPE IV-A	EACH	0	0	1	0	4	5	5
2506.602	CONSTRUCT MANHOLE, DESIGN TYPE SPECIAL	EACH	0	0	0	0	1	1	1
2506.602	CONSTRUCT CATCH BASIN, DESIGN TYPE 7A	EACH	28	28	28	0	0	82	82
2511.502	RANDOM RPPRAP, CLASS III	TON	29	0	29	0	0	58	58
2511.515	GEOTEXTILE FILTER FABRIC, TYPE IV	SQ. YD.	15	0	15	0	0	30	30
2521.501	4" CONCRETE WALK	SQ. FT.	0	8,300	0	0	0	8,300	8,300
2521.501	6" CONCRETE WALK	SQ. FT.	0	1,389	0	0	0	1,389	1,389
2521.501	6" CONCRETE WALK TRUNCATED DOME	SQ. FT.	0	64	0	0	0	64	64
2531.501	CONCRETE CURB & GUTTER, DESIGN B-624	LN. FT.	1,219	5,080	0	0	0	6,299	6,299
2531.501	CONCRETE CURB, DESIGN D-418	LN. FT.	0	4,470	0	0	0	4,470	4,470
2531.507	8" CONCRETE DRIVEWAY PAVEMENT	SQ. YD.	964	571	0	0	0	1,535	1,535
2531.507	8" CONCRETE DRIVEWAY PAVEMENT	SQ. YD.	0	105	0	0	0	105	105
2531.803	HAND FORM CONCRETE CURB TO PROTECT TREES	LN. FT.	100	100	0	0	0	200	200
2540.602	INSTALL GANG MAILBOX AND SUPPORT	EACH	5	3	0	0	0	8	8
2545.511	LIGHT STANDARD TYPE L10	EACH	18	17	0	0	0	35	35
2545.513	LUMINAIRE TYPE R70	EACH	18	17	0	0	0	35	35
2545.515	LIGHT BASE FOUNDATION TYPE STANDARD	EACH	18	17	0	0	0	35	35
2545.523	1 1/2" CONDUIT BEHIND CURB	LN. FT.	5,270	4,724	0	0	0	9,994	9,994
2545.523	1 1/2" NMC TRENCH & RESTORE/PUSH	LN. FT.	250	150	0	0	0	400	400
2545.523	2" NMC TRENCH & RESTORE/PUSH	LN. FT.	20	20	0	0	0	40	40
2545.531	1C#4 AWG	LN. FT.	120	60	0	0	0	180	180
2545.531	1C#6 AWG	LN. FT.	14,550	14,582	0	0	0	29,112	29,112
2545.531	1C#8 AWG INSULATED	LN. FT.	5,600	4,924	0	0	0	10,524	10,524
2545.541	SERVICE PANEL LIGHTING, POLE MOUNTED	EACH	1	1	0	0	0	2	2
2545.553	PULL BOX TYPE L (13x24x12)	EACH	3	4	0	0	0	7	7
2554.603	INSTALL SALVAGED GUARDRAIL	LN. FT.	64	0	0	0	0	64	64
2557.603	INSTALL SALVAGED FENCE	LN. FT.	0	100	0	0	0	100	100
2571.507	FURNISH AND PLANT PERENNIAL	PLANT	1,570	0	1,570	0	0	3,140	3,140
2571.607	PLANTING MEDIUM FOR INFILTRATION POND	CU. YD.	79	0	79	0	0	158	158
2573.507	SLT FENCE, HEAVY DUTY	LN. FT.	30	0	30	0	0	60	60
2573.602	INTERM SEDIMENT CONTROL FOR CATCH BASINS	EACH	28	28	0	0	0	54	54
2575.501	SEEDING	ACRE	0.06	0	0.06	0	0	0.12	0.12
2575.502	SEED MIXTURE - TYPE 330 (84LBS/ACRE)	POUND	2.00	0	0	0	0	2	2
2575.505	SCODING, TYPE LAWN	SQ. YD.	4,739	4,259	0	20	0	9,018	9,018
2575.523	EROSION CONTROL BLANKET TYPE 2S	SQ. YD.	64	0	0	0	0	64	64

28-436

STATEMENT OF ESTIMATED QUANTITIES

	DESIGNED	BRM	I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA Signature: <i>Barbara R. Mundahl</i> Date: 5/30/06 Lic. No. 43099	PREPARED BY STREET ENGINEERING DIVISION FOR THE CITY OF ST. PAUL, DEPARTMENT OF PUBLIC WORKS <h2 style="text-align: center;">LONDIN LANE/BURLINGTON ROAD</h2>	PROJECT: 06-P-1280	STATE AID PROJECT NUMBER: 164-279-001
	DRAWN	BRM			DRAWER: 12	CAD NAME: PROJECTS/CURRENT/LBTYPICALS
	APPROVED	BRM			DWG. NO. 1499	DATE: 5/30/06 SHEET NO. 3 OF 24 SHEETS

BURLINGTON ROAD - Totem Road to Lower Afton Road

STR NO.	STATION	LT.	RT.	AS IS	REM MH	REM CB	RECON	ADJ MH	REM PIPE
1	0+07.11		18.77	X					
2	0+02.74		48.26	X					
3	0+16.14	47.3		X					
4	0+02.13	23.7		X					
5	0+24.27	25		X					
6	0+41.66	16.3		X					
7	0+47.12	0		X					
8	0+40.15		16.7	X					
9	0+16.47		39.1	X					
10	2+72.32		6.7					X	
11	3+52.67		17.4			X			
12	3+80.07	21.1				X			
13	3+91.51	26.7		X					
14	4+17.02	47.9		X					
15	4+08.69	16.5						X	
16	4+34.40		19.6			X			
17	4+47.39	19.9				X			
18	6+01.34	0.7						X	
19	7+52.11	2.6						X	
20	8+94.60	0						X	
21	10+53.92	0						X	
22	11+72.67	0						X	
23	13+01.73	0						X	
24	14+67.84	0						X	
25	17+24.69	0						X	
26	18+34.55	0						X	
27	20+75.45	0						X	
28	22+49.35	11.37				X			
29	22+56		18.53			X			
30	22+67.27		47.06			X			
31	23+14.82	0						X	
32	23+07.41		30.94		X				115
33	23+13.25		39.43			X			

LONDIN LANE - Lower Afton Road to McKnight Road

STR NO.	STATION	LT.	RT.	AS IS	REM MH	REM CB	RECON	ADJ MH	NOTES
34	1+64.10	32				X			
35	1+78.07	109.1						X	
36	1+81.44	102.9				X			
37	2+36.42	84.3		X					
38	2+43.95	78.2		X					
39	2+28.06	18.7						X	
40	2+39.54	47.6		X					
41	2+42.12	37.1			X				381
42	2+48.17	42.5						X	
43	2+47.81	9.9						X	
44	4+32.34		0.6					X	
45	6+44.39	4.5						X	
46	7+98.40	3.8						X	
47	9+38.71	3						X	
48	11+03.23	1.8						X	
49	12+61.58		1.9					X	
50	13+74.15	1.5						X	
51	15+25.53		3					X	
52	18+26.69		7.5					X	
53	21+25.61	0.5						X	
54	22+61.45	0.3						X	
55	24+26.18	0.4						X	
56	25+51.78	0.2						X	
57	26+87.65	0.4						X	
58	27+09.16		43.9	X					
59	27+09.79		58.5	X					

28-436

EXISTING SEWER STRUCTURES



DESIGNED BRM
DRAWN BRM
APPROVED BRM

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA
Signature: *Barbara R. Munda* Date: 5/30/06
BARBARA R. MUNDAHL Lic. No. 43099

PREPARED BY STREET ENGINEERING DIVISION FOR THE CITY OF ST. PAUL, DEPARTMENT OF PUBLIC WORKS

LONDIN LANE/BURLINGTON ROAD

PROJECT: 06-P-1280
DRAWER: 12
DWG. NO. 1499

STATE AID PROJECT NUMBER: 164-279-001
CAD NAME: PROJECTS/CURRENT/LBTYPICALS
DATE: 5/30/06 SHEET NO. 4 OF 24 SHEETS



BURLINGTON ROAD - Totem Road to Totem Road

STR NO.	STATION	LT.	RT.	MH	CB	LENGTH	SIZE	CLASS	NOTES
98	3+53.16		15		7A	7.3	12	V	
99	3+97.79	15			7A	10	12	V	
100	4+38.87	5.18		TYPE IV		51.9	21	III	
101	4+45.55	14.4			7A	10.5	12	V	
102	4+50.48		15		7A	20.9	12	V	
103	5+93.05	7.45		TYPE IV		155.4	21	III	
104	5+93.07	15			7A	6.3	12	V	
105	5+94.29		15		7A	20.7	12	V	
106	7+36.27	15			7A	6.3	12	V	
107	7+36.28	8.14		TYPE IV		145	21	III	
108	7+37.54		15		7A	21.7	12	V	
109	8+55.66	10.56		TYPE IV		139.9	18	V	
110	9+84.69	7.58		TYPE IV		100.4	15	V	
111	9+84.69	15			7A	6.4	12	V	
112	9+84.69		15		7A	20.9	12	V	
113	11+14.52	10.8		TYPE IV		130	12	V	
114	11+21.89		15		7A	23.6	12	V	
115	11+25.77	15			7A	11.7	12	V	
116	16+95.18		15.28		7A	12.8	12	V	
117	17+07.44		10.92	TYPE IV		120	15	V	
118	17+02.59	15.21			7A	24.7	12	V	
119	18+04.82	15.24			7A	30.6	12	V	
120	18+15.43		14.7		7A	9.6	12	V	
121	18+24.52		10.21	TYPE IV		147.8	18	V	
122	19+70.48	15.04			7A	19.8	12	V	
123	19+70.85		6.8	TYPE IV		283.5	18	V	
124	19+70.88		15.03		7A	6.2	12	V	
125	22+54.32		6.49	TYPE IV		58.5	21	III	
126	22+51.47		15.12		7A	7.2	12	V	
127	22+55.81	14.69			7A	19.2	12	V	

LONDIN LANE - Totem Road to McKnight Road

STR NO.	STATION	LT.	RT.	MH	CB	LENGTH	SIZE	CLASS	NOTES
138	2+34.45	5		TYPE IVA		86.5	12	V	
139	2+36.29		12.41		7A	13	12	V	
140	2+40.34	13.01			7A	8.7	12	V	
141	4+65.14		6.61	TYPE IV		230.6	21	III	
142	4+65.44		14.4		7A	5.9	12	V	
143	4+64.57	13.02			7A	17.6	12	V	
144	6+34.89		1.86	TYPE IV		169.3	21	III	
145	6+35.19	12.97			7A	12.8	12	V	
146	6+34.48		12.8		7A	9	12	V	
147	7+87.50		2.63	TYPE IV		150.7	21	III	
148	7+87.60		12.97		7A	8.3	12	V	
149	7+95.24	12.9			7A	15.7	12	V	
150	9+48.32		12.86		7A	7	12	V	
151	9+47.68		3.88	TYPE IV		157.7	21	III	
152	9+46.86	12.77			7A	14.7	12	V	
153	10+90.21		13.68		7A	6.2	12	V	
154	10+90.02		5.45	TYPE IV		139.8	21	III	
155	10+90.47	12.96			7A	16.4	12	V	
156	12+72.15		8.59	TYPE IV		182.9	21	III	
157	12+77.15	12.75			7A	19.9	15	V	
158	12+89.46		12.83		7A	25	12	V	
159	14+28.25		12.19	TYPE IV		158.9	21	III	
160	14+61.11	15.91			7A	41.8	15	V	
161	14+60.56		16.18		7A	28.1	12	V	
162	15+51.58		10.47	TYPE IV		125.9	21	III	
163	17+68.00	15.94			7A	20.8	12	V	
164	17+68.15		6.88	TYPE IV		217.8	21	III	
165	17+68.41		15.71		7A	6.8	12	V	
166	19+65.92	16.02			7A	18.8	12	V	
167	19+66.75		4.72	TYPE IV		199.4	21	III	
168	19+67.03		16.01		7A	9.3	12	V	
169	22+43.99		39.58		7A	27	12	V	
170	22+67.06		6.16	TYPE IV		300.3	21	III	
171	22+75.34		39.89		7A	34.3	15	V	
172	23+10.49	15.88			7A	49.5	15	V	
173	23+10.49		15.75		7A	31.6	12	V	
174	25+34.03		40.22		7A	26.5	12	V	
175	25+57.07		4.77	TYPE IV		290	21	III	
176	25+64.54		40.34		7A	36.1	15	V	
177	25+89.70		16.73		7A	34	15	V	
178	25+88.26	16.11			7A	28.9	12	V	

TOTEM ROAD - Burlington Road to Lower Afton Road

STR NO.	STATION	LT.	RT.	MH	CB	LENGTH	SIZE	CLASS	NOTES
95	0+04.06		5.36	TYPE IVA		112	48	III	
96	0+90.20	15			7A	35.6	12	V	
97	1+11.08		13.7		7A	9.4	12	V	
128	1+17.65		7.02	TYPE IVA		161.4	48	III	
129	2+78.85		1.97	TYPE IVA		0			
130	4+09.17	20.08			7A	26.6	15	V	
131	3+99.73		19.64		7A	36.9	12	V	
132	4+35.22	12.9		TYPE IV		95	12	V	w/12" Flared End Section
133	5+12.35	20.23			7A	6.1	12	V	
134	5+12.58	12.1		TYPE IV		77.4	12	V	
135	5+12.32		19.01		7A	29.1	12	V	
136	5+12.02	192.53		Special		0			Place over ex.15" culvert

28-436

PROPOSED SEWER STRUCTURES



DESIGNED BRM
 DRAWN BRM
 APPROVED BRM

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

Signature: *Barbara R. Munda* Date: 5/30/06
 BARBARA R. MUNDAHL Lic. No. 43099

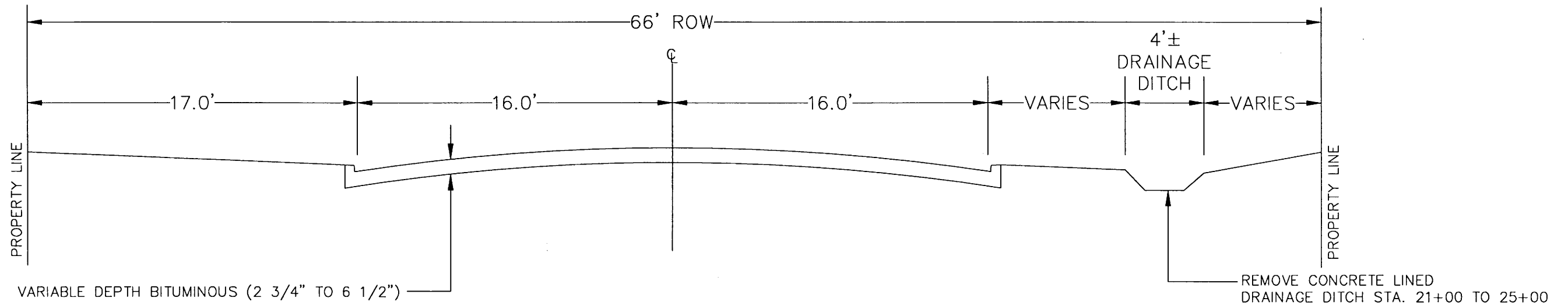
PREPARED BY STREET ENGINEERING DIVISION FOR THE CITY OF ST. PAUL, DEPARTMENT OF PUBLIC WORKS

LONDIN LANE/BURLINGTON ROAD

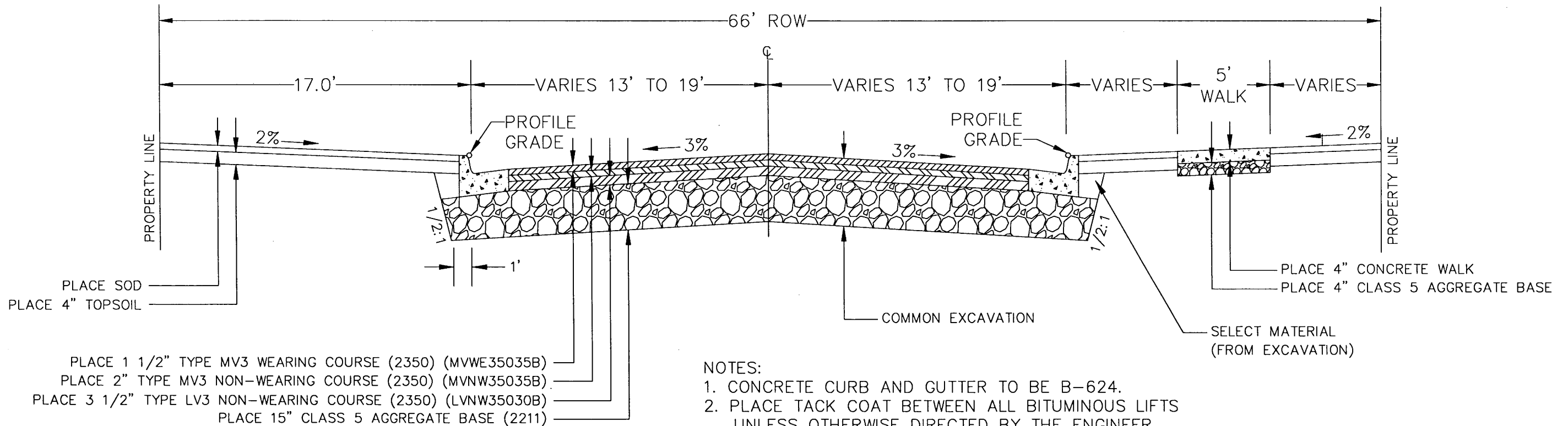
PROJECT: 06-P-1280 STATE AID PROJECT NUMBER: 164-279-001
 DRAWER: 12 CAD NAME: PROJECTS/CURRENT/LBTYPICALS
 DWG. NO. 1499 DATE: 5/30/06 SHEET NO. 5 OF 24 SHEETS



LONDIN LANE – TOTEM ROAD TO MCKNIGHT ROAD
EXISTING TYPICAL SECTION



LONDIN LANE – TOTEM ROAD TO MCKNIGHT ROAD
TOTEM ROAD – BURLINGTON ROAD TO LOWER AFTON ROAD
PROPOSED TYPICAL SECTION



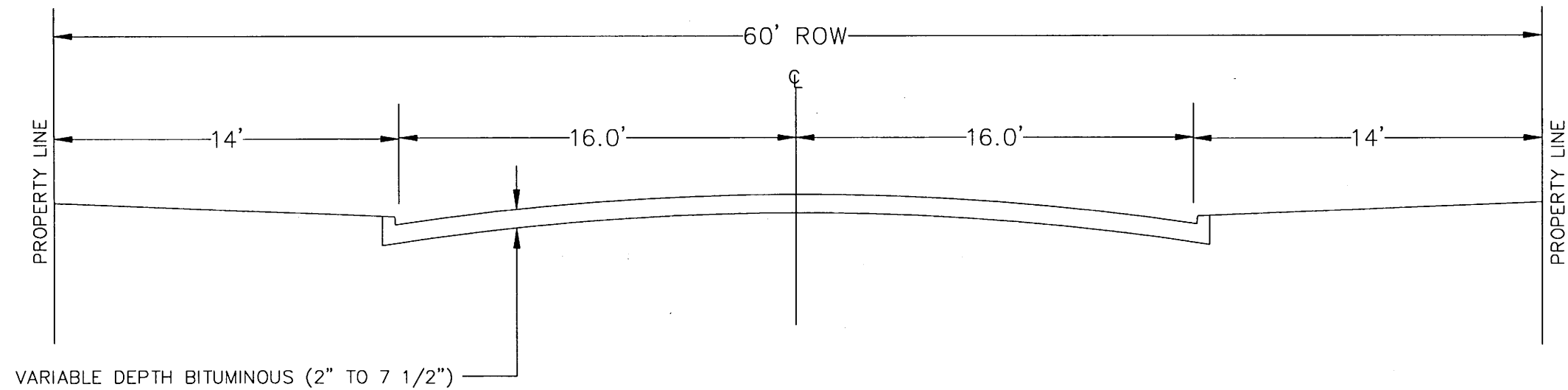
- NOTES:
1. CONCRETE CURB AND GUTTER TO BE B-624.
 2. PLACE TACK COAT BETWEEN ALL BITUMINOUS LIFTS UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
 3. LONDIN LANE FROM STA. 1+61 TO STA. 14+21 SHALL HAVE 13' LANES. LONDIN LANE FROM STA. 14+21 TO STA. 27+28 SHALL HAVE 16' LANES.
 4. TOTEM ROAD TAPERS FROM 32' WIDE AT BURLINGTON ROAD TO 38' WIDE AT LOWER AFTON ROAD.

28-436

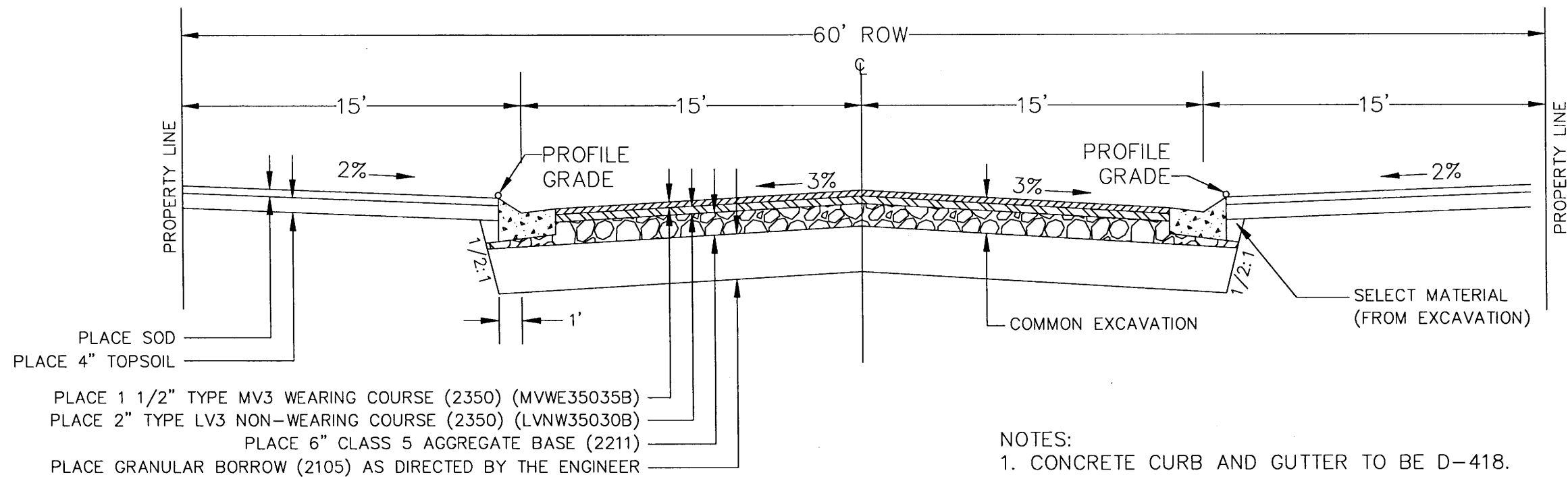
LONDIN LANE TYPICAL SECTION
TOTEM ROAD TYPICAL SECTION

	DESIGNED	BRM	I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA Signature: <i>Barbara R. Munda</i> Date: 5/22/06 Lic. No. 43099	PREPARED BY STREET ENGINEERING DIVISION FOR THE CITY OF ST. PAUL, DEPARTMENT OF PUBLIC WORKS LONDIN LANE/BURLINGTON ROAD	PROJECT: 06-P-1280	STATE AID PROJECT NUMBER: 164-279-001
	DRAWN	BRM			DRAWER: 12	CAD NAME: PROJECTS/CURRENT/LBTYPICALS
	APPROVED	BRM			DWG. NO. 1499	DATE: 5/22/06 SHEET NO. 6 OF 24 SHEETS

BURLINGTON ROAD – TOTEM ROAD TO LONDIN LANE
EXISTING TYPICAL SECTION



PROPOSED TYPICAL SECTION



- NOTES:
1. CONCRETE CURB AND GUTTER TO BE D-418.
2. PLACE TACK COAT BETWEEN ALL BITUMINOUS LIFTS UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

28-436

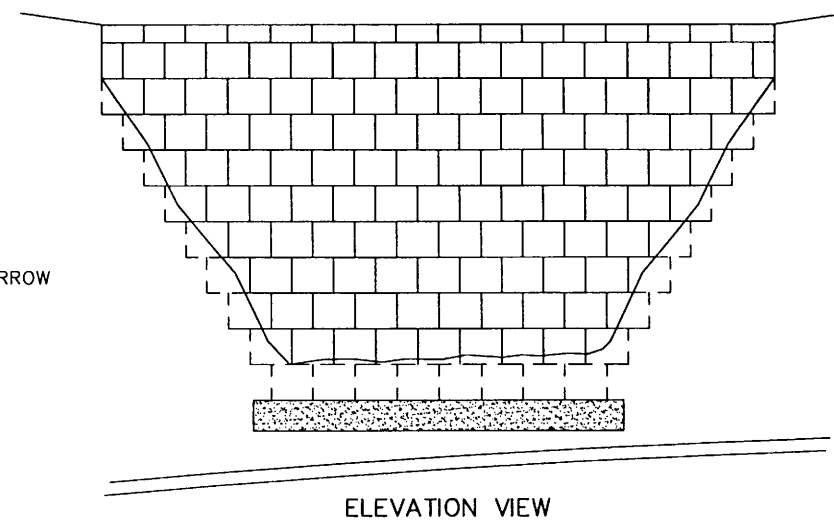
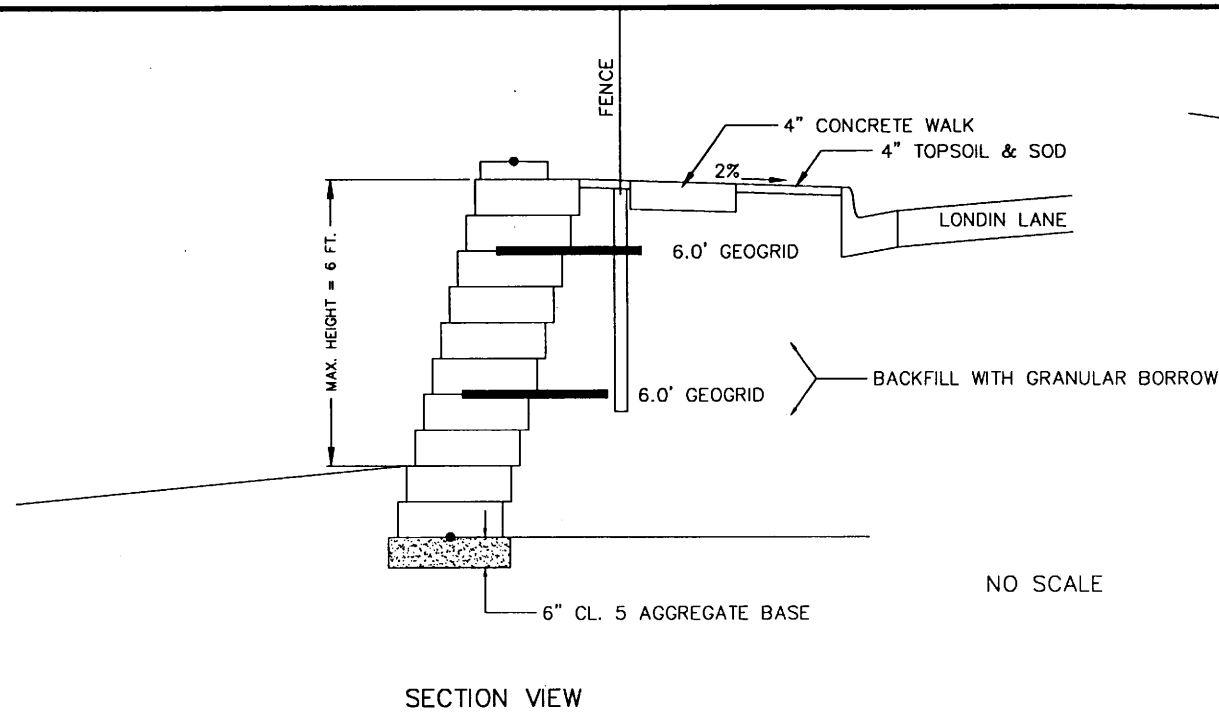
BURLINGTON ROAD TYPICAL SECTION

	DESIGNED	BRM	I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA Signature: <i>Barbara R. Mondahl</i> Date: 5/22/06 Lic. No. 43099	PREPARED BY	STREET ENGINEERING DIVISION FOR THE CITY OF ST. PAUL, DEPARTMENT OF PUBLIC WORKS	PROJECT:	06-P-1280	STATE AID PROJECT NUMBER:		
	DRAWN	BRM		LONDIN LANE/BURLINGTON ROAD	DRAWER:	12	CAD NAME:	PROJECTS/CURRENT/LBTYPICALS		
	APPROVED	BRM			DWG. NO.	1499	DATE:	5/22/06	SHEET NO.	7 OF 24 SHEETS

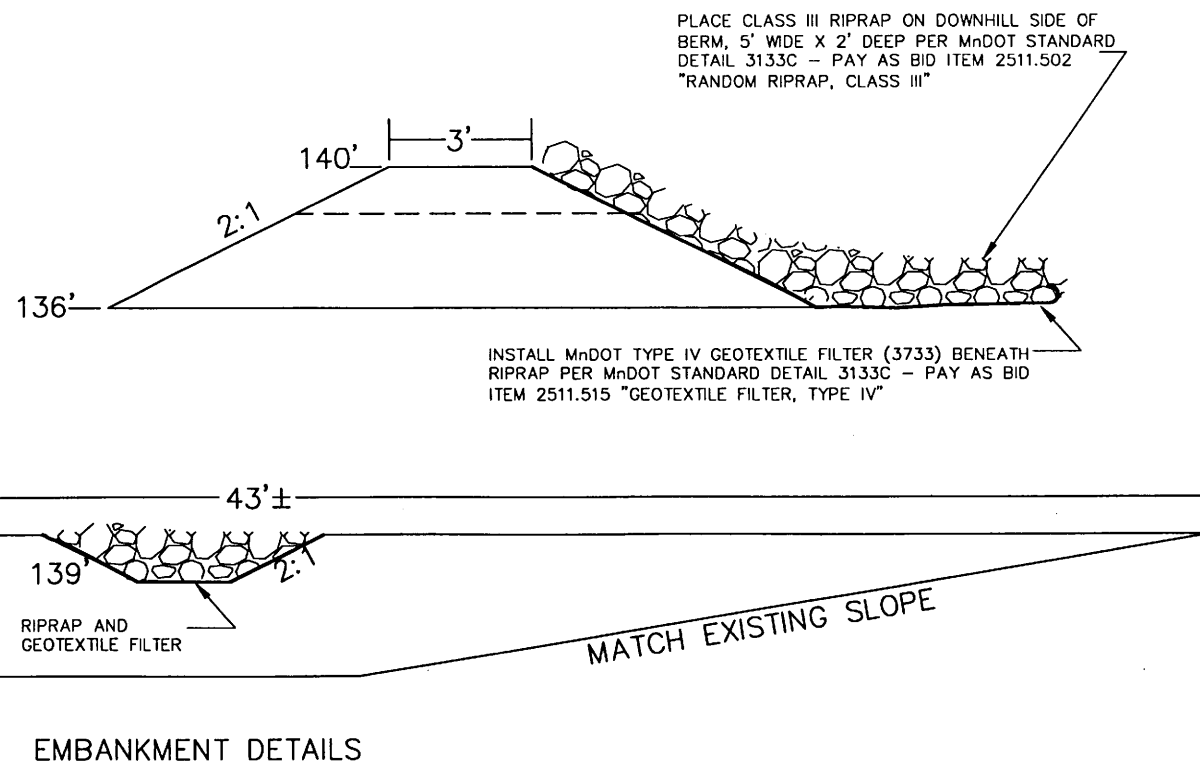
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STANDARD DETAIL PLATES	
ST. PAUL DRG. NO.	STANDARD DETAIL
1206C	CONCRETE DRIVEWAY, TYPE 6
1304C	SIGN COLLAR PLACEMENT
2015F	CATCH BASIN, DESIGN TYPE 7A
2101C	MANHOLE, TYPE I
2104D	MANHOLE, TYPE IV
2105D	MANHOLE, TYPE V & V-S
2201D	FRAME CASTING A
2202C	COVER CASTINGS B & D
2207C	MANHOLE ADAPTOR RINGS
2306E	RECONNECTION OF HOUSE SERVICES
2309C	CATCH BASIN CONNECTION
2317C	TYPES OF TRENCH BEDDING
2318C	CONCRETE SADDLE FOR PIPE CROSSINGS
2319C	SADDLE CONNECTIONS FOR HOUSE SERVICES
3000B	CONCRETE CURB
3008	SAWED / SEALED JOINTS
3100C	CONCRETE CURB AND GUTTER, DESIGN B
3102B	CONC. CURB & GUTTER OPENING FOR DRIVEWAYS
3107A	CONCRETE CURB AND GUTTER, DESIGN D-418
3108A	D-418 CURB TRANSITION @ TYPE 7A CATCH BASIN
4031B	BARRICADE DESIGNS
4032A	BARRICADING FOR STREET CLOSURE
4035A	WARNING LIGHTS AND CHANNELIZING DEVICES
4036	BARRICADING FOR SIDEWALK REPLACEMENT
6200B	RESET MONUMENT

STANDARD DETAIL PLATES	
THESE STANDARD PLATES AS APPROVED BY THE FHWA SHALL APPLY	
MnDOT DRG. NO.	STANDARD DETAIL
3000L	REINFORCED CONCRETE PIPE
3006G	GASKET JOINT FOR R. C. PIPE
3100G	FLARED END SECTION
3145F	CONCRETE PIPE TIES
4010H	CONCRETE SHORT CONE & ADJUSTING RING
8000I	STANDARD BARRICADES
8310B	CHAIN LINK FENCE



RETAINING WALL DETAILS
 BID ITEM 2411.618 "MODULAR BLOCK RETAINING WALL"
 (LONDIN LANE STA. 6+50± TO STA. 8+00±)



EMBANKMENT NOTES:

- AREAS ON WHICH FILL IS TO BE PLACED SHALL BE SCARIFIED PRIOR TO PLACEMENT OF FILL. FILL MATERIALS SHALL BE PLACED IN MAXIMUM 8 INCH THICK (BEFORE COMPACTION) LAYERS WHICH ARE TO BE CONTINUOUS OVER THE ENTIRE LENGTH OF THE FILL. THE MOST PERMEABLE BORROW MATERIAL SHALL BE PLACED IN THE DOWNSTREAM PORTIONS OF THE EMBANKMENT.
- FILL MATERIAL SHALL BE TAKEN FROM APPROVED BORROW AREAS AND SHALL BE FREE OF ROOTS, STUMPS, WOOD, RUBBISH, STONES GREATER THAN 6" AND OTHER OBJECTIONAL MATERIALS.
- FILL MATERIAL FOR CENTER OF EMBANKMENT SHALL CONFORM TO UNIFIED SOIL CLASSIFICATION GC, SC, CH OR CL AND MUST HAVE AT LEAST 30% PASSING THE #200 SIEVE.
- A 4 INCH LAYER OF TOPSOIL SHALL BE PLACED IN THE OUTER SHELL OF THE EMBANKMENT TO SUPPORT STABILIZING VEGETATION.
- ALL EXPOSED SURFACES OF THE EMBANKMENT SHALL BE STABILIZED BY SEEDING (SEE MIXTURE = TYPE 330), LIMING, FERTILIZING AND MULCHING. (MULCH = TYPE 2S)

28-436
 STANDARD DETAIL PLATES
 RETAINING WALL DETAILS
 EMBANKMENT DETAILS



DESIGNED	BRM
DRAWN	BRM
APPROVED	BRM

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

Signature: *Barbara R. Munda* Date: 5/30/06
 BARBARA R. MUNDAHL Lic. No. 43099

PREPARED BY STREET ENGINEERING DIVISION FOR THE CITY OF ST. PAUL, DEPARTMENT OF PUBLIC WORKS

LONDIN LANE/BURLINGTON ROAD

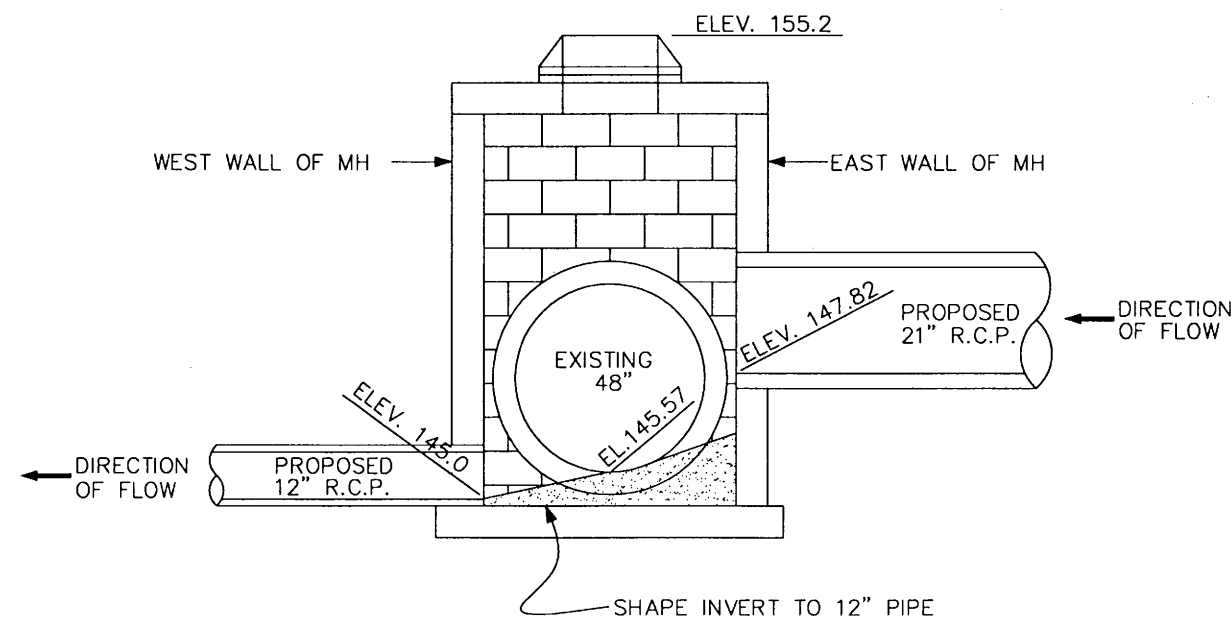
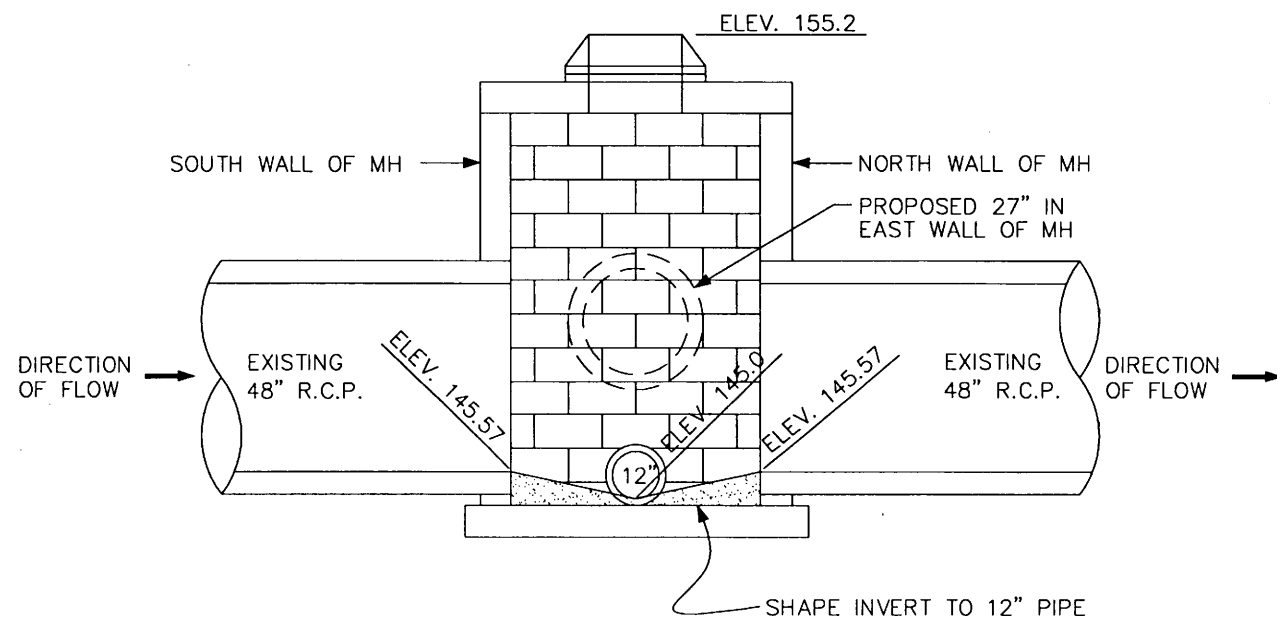
PROJECT:	06-P-1280
DRAWER:	12
DWG. NO.	1499

STATE AID PROJECT NUMBER:	164-279-001
CAD NAME:	PROJECTS/CURRENT/LB-DETAILS
DATE:	5/30/06
SHEET NO.	8 OF 24 SHEETS

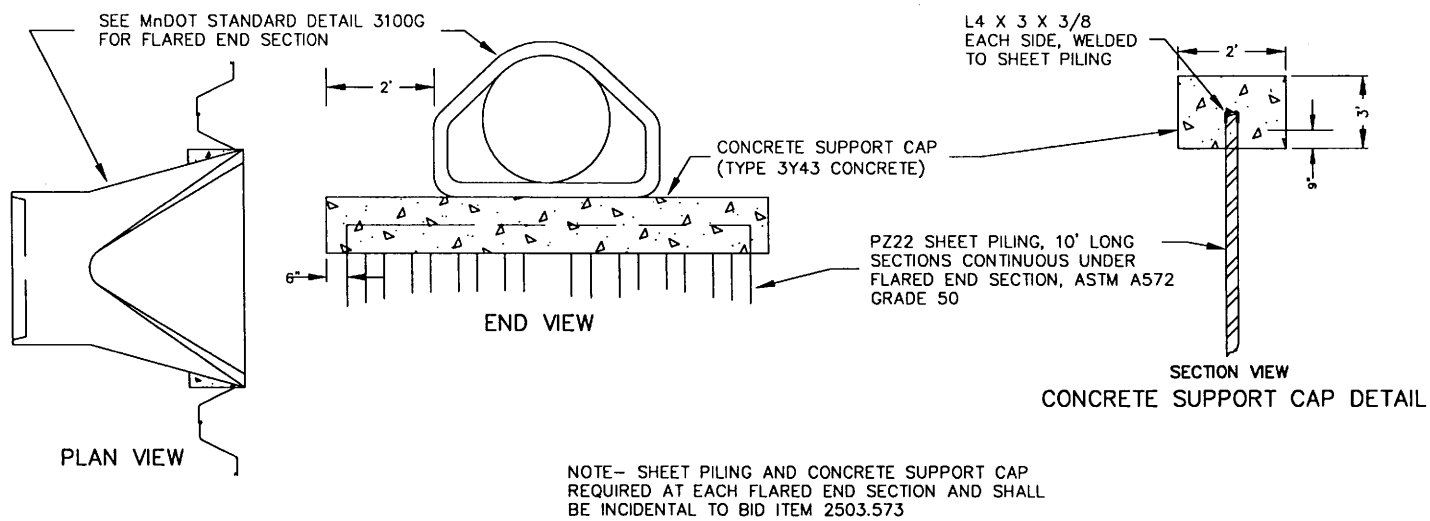


MH 138
TYPE IV-A
CITY STD. PL. 2110B

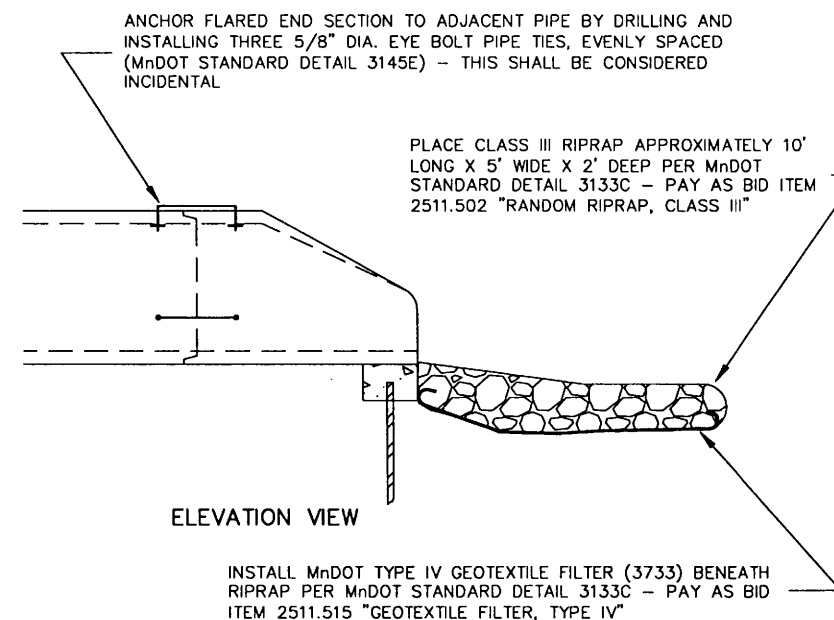
MH 138
TYPE IV-A
CITY STD. PL. 2110B



DIVERSION MANHOLE - STRUCTURE #138



FLARED END SECTION DETAILS
BID ITEM 2503.573 "INSTALL 12" R.C.P. FLARED END SECTION, CLASS V"
NO SCALE



28-436

INFILTRATION POND DETAILS

\\atlantis\stp-pw\Users\Barbara\My Documents\Home\Barbara\Land Projects\3\LONDIN LANE\dwg\LB-details.dwg Jun 01, 2006 - 7:54am



DESIGNED	BRM
DRAWN	BRM
APPROVED	BRM

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

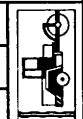
Signature: *Barbara R. Munda* Date: 5/30/06
BARBARA R. MUNDAHL Lic. No. 43099

PREPARED BY STREET ENGINEERING DIVISION FOR THE CITY OF ST. PAUL, DEPARTMENT OF PUBLIC WORKS

LONDIN LANE/BURLINGTON ROAD

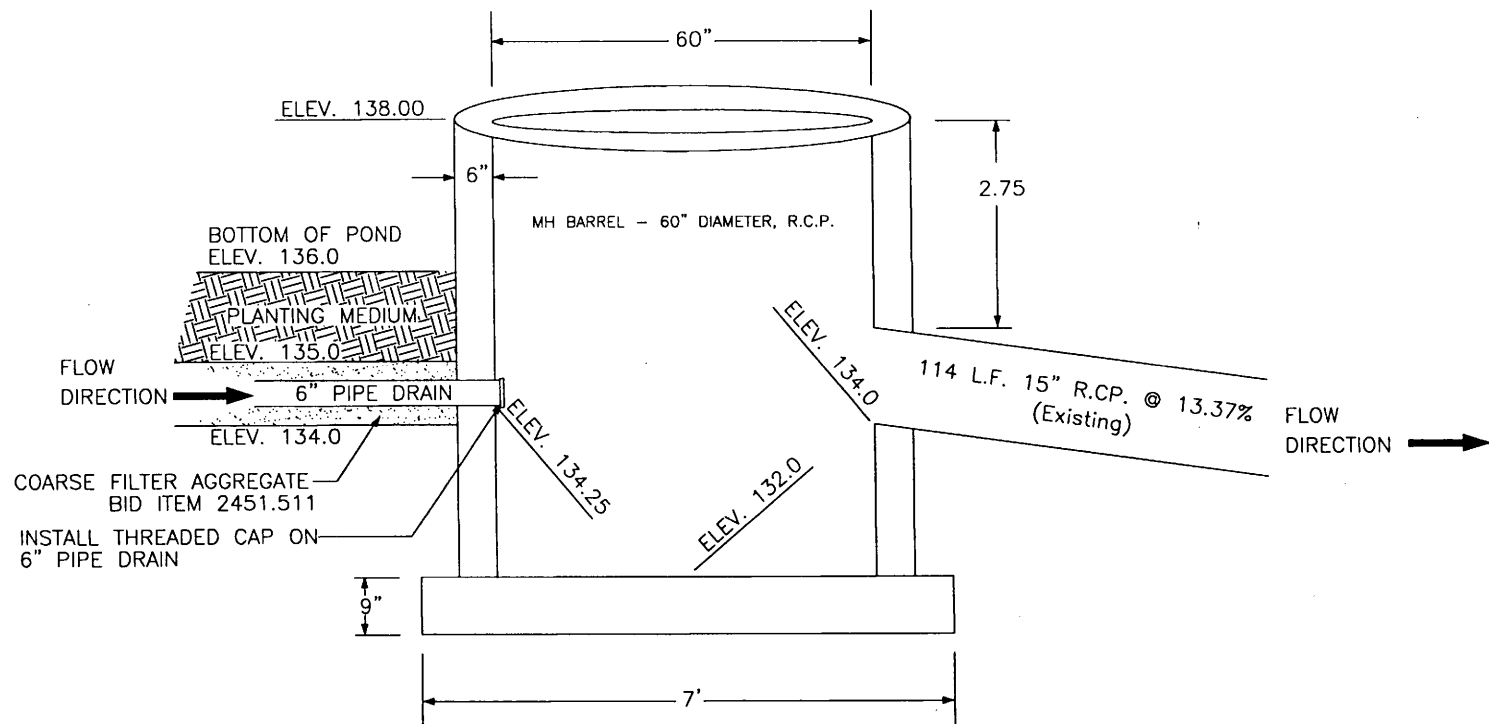
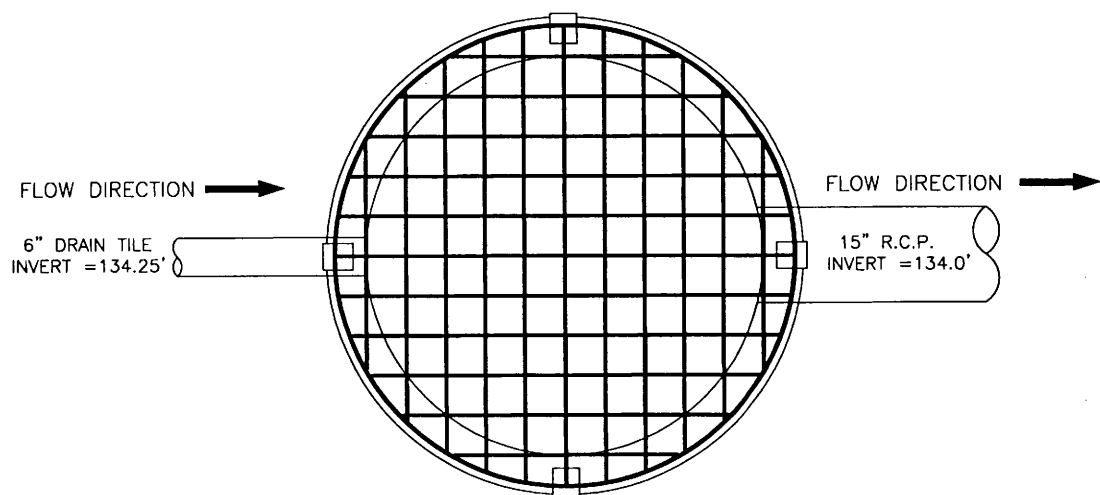
PROJECT: 06-P-1280
DRAWER: 12
DWG. NO. 1499

STATE AID PROJECT NUMBER: 164-279-001
CAD NAME: PROJECTS/CURRENT/LB-DETAILS
DATE: 5/30/06 SHEET NO. 9 OF 24 SHEETS



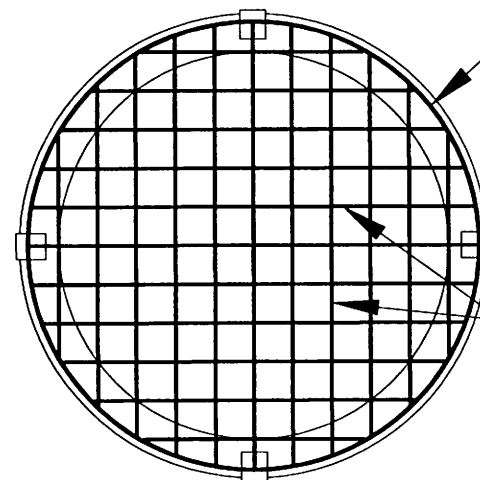
SPECIAL STRUCTURE #136
NO SCALE

TOP VIEW



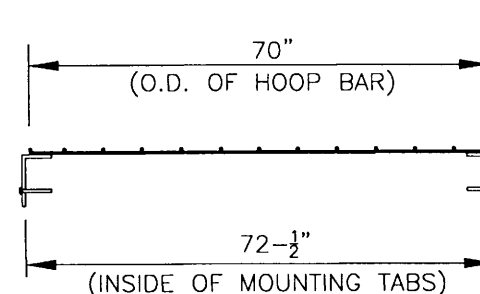
ELEVATION VIEW
STRUCTURE #136

GRATE ASSEMBLY

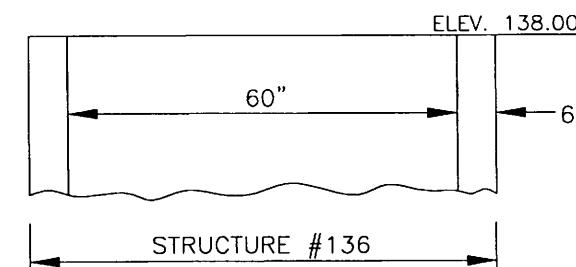


70" O.D. HOOP BAR
WELDED TO MOUNTING
TABS AND CROSS BARS.

1/2" DIA. SOLID BARS
@ 6" O.C., EACH WAY.
WELDED AT ALL INTERSECTIONS
AND TO HOOP BAR.



5/8" STAINLESS STEEL
ANCHOR BOLT, 4" LG.
(4 REQ'D)



MOUNTING TAB
ISOMETRIC VIEW
NO SCALE

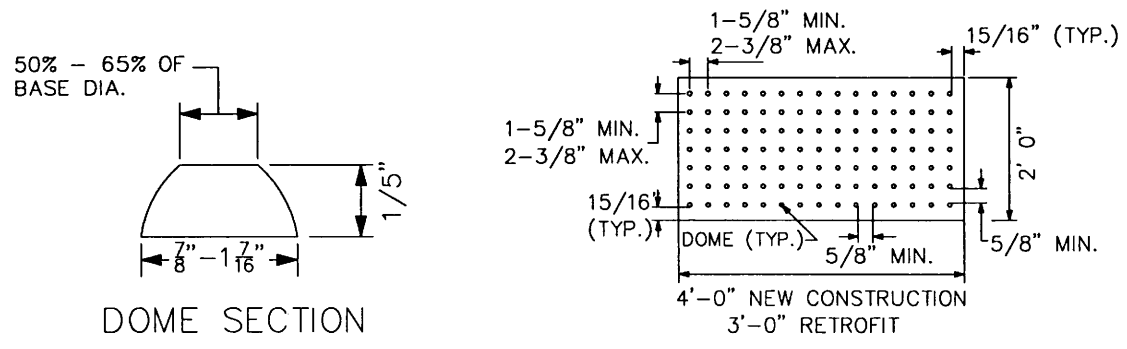
5" x 6" x 3/8" ANGLE
5" LONG (4 REQ'D, EVENLY
SPACED AROUND PERIMETER
OF GRATE STRUCTURE)

NOTE:
GRATE ASSEMBLY TO BE HOT DIP
GALVANIZED AFTER FABRICATION
AS PER MNDOT 3392

28-436

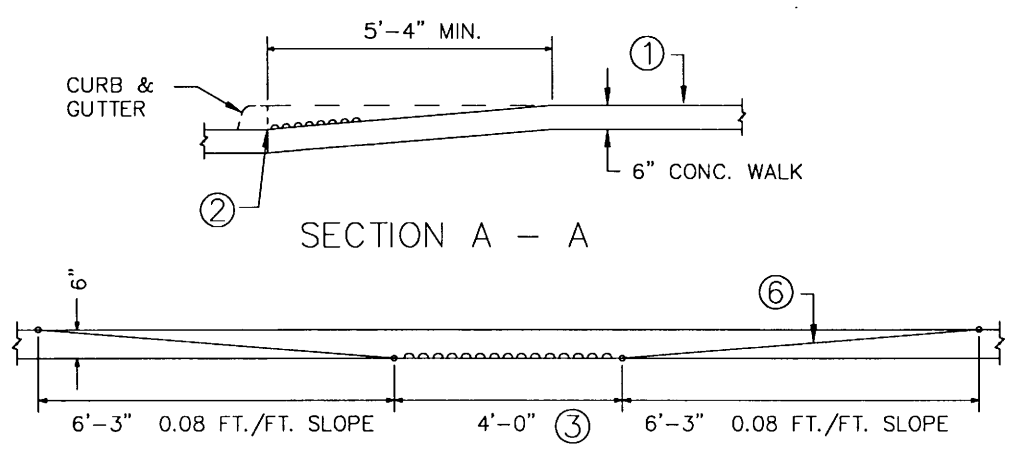
C:\Users\STP-PWUsers\Documents\Barbara R. Munda\My Documents\Barbara R. Munda\Projects\London Lane\Special 136.DWG Jun 01, 2006 - 8:00am

	DESIGNED	BRM	I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA Signature: <i>Barbara R. Munda</i> Date: 5/30/06 BARBARA R. MUNDAHL Lic. No. 43099	PREPARED BY STREET ENGINEERING DIVISION FOR THE CITY OF ST. PAUL, DEPARTMENT OF PUBLIC WORKS LONDIN LANE/BURLINGTON ROAD	PROJECT:	06-P-1280	STATE AND PROJECT NUMBER:	164-279-001	
	DRAWN	BRM			DRAWER:	12	CAD LOCATION	PROJECTS/CURRENT/LONDINLANE/SPECIAL 136.DWG	
	APPROVED	BRM			DWG. NO.	1499	DATE:	5/30/06	SHEET NO.



DOME SECTION

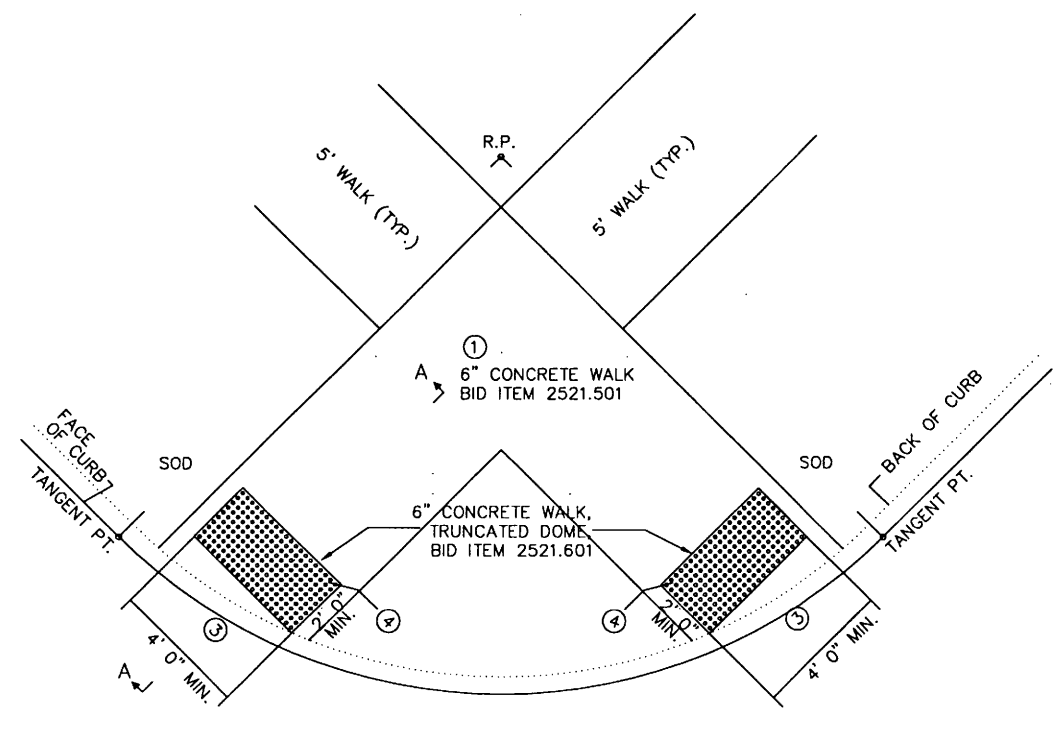
DOME SPACING ⑤



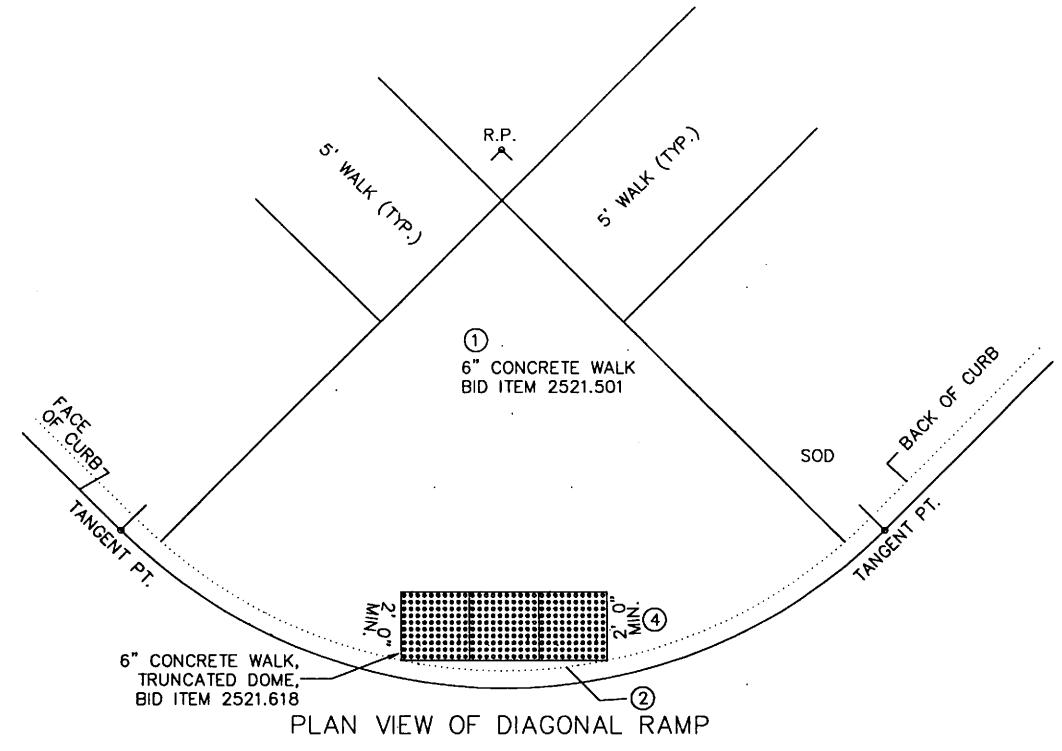
SECTION A - A

PROFILE VIEW OF RAMP

SECTION DETAILS
NO SCALE



PLAN VIEW OF DOUBLE RAMP



PLAN VIEW OF DIAGONAL RAMP

- ① WHEN POSSIBLE, PROVIDE A PATH OF TRAVEL 4'-0" WIDE BEHIND THE PEDESTRIAN RAMP. A RELATIVELY FLAT 4'-0" X 4'-0" LANDING WILL ALLOW WHEELCHAIRS TO NAVIGATE AROUND THE PEDESTRIAN RAMP.
- ② 0" TO 4" OFFSET OF THE DETECTABLE WARNINGS / TRUNCATED DOME AREA FROM THE BACK OF CURB.
- ③ 4'-0" FOR NEW CONSTRUCTION. 3'-0" ALLOWED FOR RETROFITS OR PRESERVATION PROJECTS.
- ④ ADA REQUIRED TRUNCATED DOME AREA SHALL BE 2'-0" MIN. IN DIRECTION OF TRAVEL AND SHALL EXTEND FULL WIDTH (3'-0" OR 4'-0" TYP.) OF THE CURB RAMP. THIS 2'-0" BY 3'-0" OR 4'-0" WIDTH (TYP.) TRUNCATED DOME AREA SHALL CONTRAST VISUALLY WITH THE ADJACENT WALKING SURFACE. THE ENTIRE TRUNCATED DOME AREA SHALL BE WHITE WHEN ADJACENT SIDEWALK IS A DARK COLOR. THE ENTIRE TRUNCATED DOME AREA SHALL BE DARK GRAY WHEN THE ADJACENT SIDEWALK IS A WHITE COLOR (OTHER COLOR CONTRASTS MAY BE USED WITH APPROVAL OF THE CITY ENGINEER).
- ⑤ TRUNCATED DOME TILE INSERTS MUST BE USED FOR ALL SITUATIONS.
- ⑥ TAPER SHALL BE 6'-3" WHEN CONCRETE IS BEHIND THE CURB AND SHALL BE 3'-0" WHEN SOD IS BEHIND THE CURB.
- ⑦ WHEN A MEDIAN IS NOT WIDE ENOUGH FOR TWO PEDESTRIAN RAMPS AND A 48" LANDING BETWEEN THEM, THE PEDESTRIAN CROSSING SHALL BE CUT THROUGH THE MEDIAN AT STREET LEVEL.

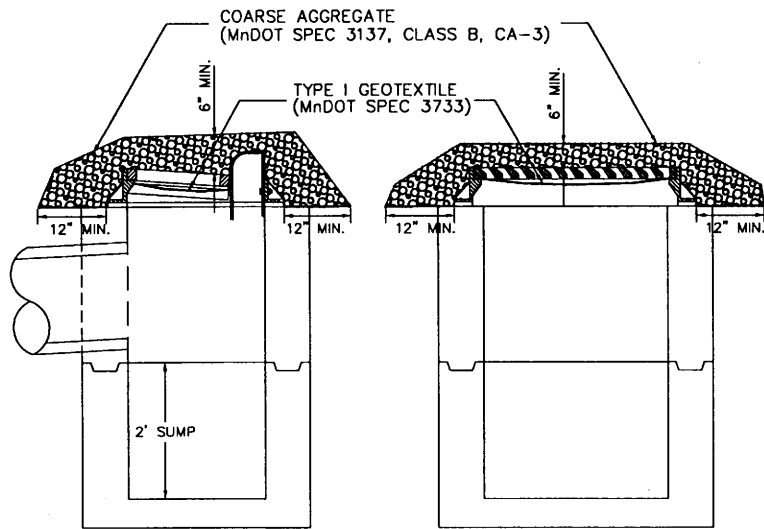
28-436

PEDESTRIAN RAMP DETAILS

	DESIGNED	WGV	I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA Signature: <i>Barbara R. Munda</i> Date: 5/22/06 BARBARA R. MUNDAHL Lic. No. 43099	PREPARED BY STREET ENGINEERING DIVISION FOR THE CITY OF ST. PAUL, DEPARTMENT OF PUBLIC WORKS LONDIN LANE/BURLINGTON ROAD	PROJECT: 06-P-1280	STATE AID PROJECT NUMBER: 164-279-001
	DRAWN	WGV			DRAWER: 12	CAD NAME: PROJECTS/CURRENT/LONDIN-PED
	APPROVED	BRM			DWG. NO. 1499	DATE: 5/22/06 SHEET NO. 11 OF 24 SHEETS

\\atlantis\STP-PWUsers\StreetEng\Barbara\My Documents\Home\Barbara\Land Projects\3\LONDIN LANE\dwg\LONDIN-PED.dwg May 22, 2006 - 8:23am

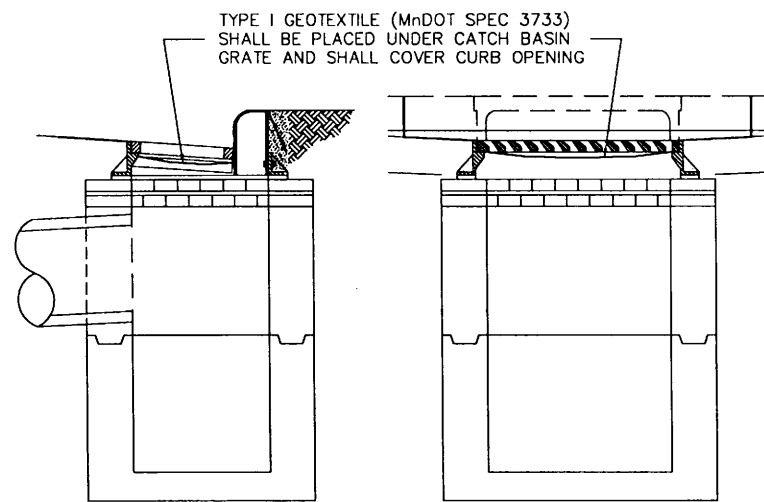
\\Atlantis\STP-PWUsers\StreetEng\Barbara\My Documents\Home\Barbara\Land Projects\London Lane\B-erosion.dwg May 22, 2006 - 8:15am



INTERIM SEDIMENT CONTROL FOR CATCH BASINS

NOTES:

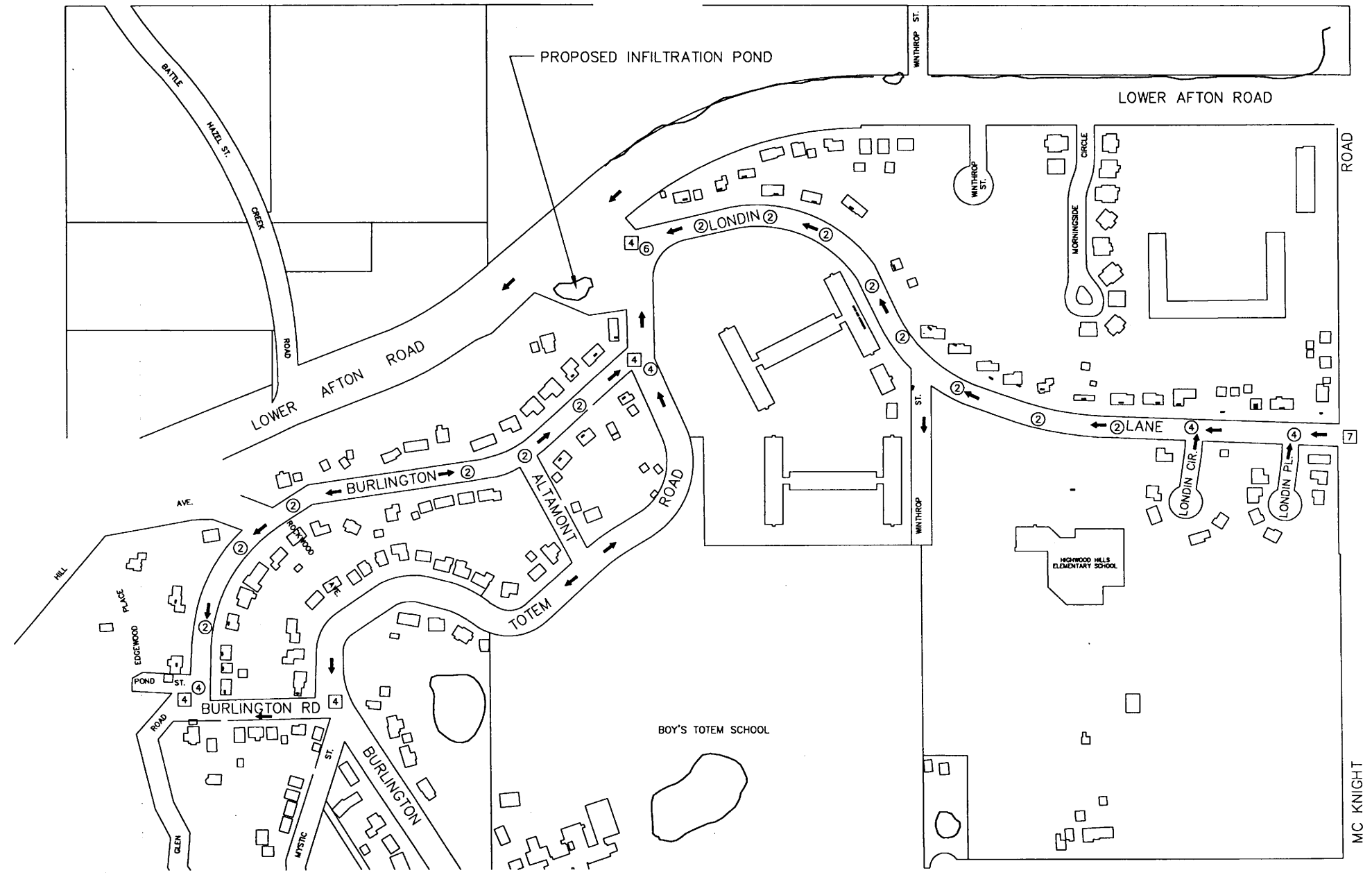
1. INTERIM SEDIMENT CONTROL REQUIRED FOR THE IDENTIFIED CATCH BASINS PRIOR TO CURB AND GUTTER CONSTRUCTION. BID ITEM 2506.602
2. CONTRACTOR TO INSPECT "INTERIM SEDIMENT CONTROL FOR CATCH BASINS" EVERY 7 DAYS AND WITHIN 24 HOURS AFTER EVERY RAIN EVENT. CONTRACTOR TO REPLACE COARSE AGGREGATE AND/OR GEOTEXTILE IF IT BECOMES NONFUNCTIONAL AS A SEDIMENT CONTROL.
3. SUMPS SHALL BE KEPT FUNCTIONAL. CONTRACTOR SHALL CLEAN SUMP IF SEDIMENT IS WITHIN 12 INCHES OF OUTLET PIPE.



INCIDENTAL SEDIMENT CONTROL FOR CATCH BASINS

NOTES:

1. INCIDENTAL SEDIMENT CONTROL REQUIRED FOR ALL CATCH BASINS ONCE CURB AND GUTTER IS CONSTRUCTED AND UNTIL CLASS V IS PLACED ON ROADWAY AND BOULEVARDS HAVE BEEN RESTORED. EXISTING CATCH BASINS AS IDENTIFIED SHALL ALSO RECEIVE INCIDENTAL SEDIMENT CONTROL FROM THE TIME UPSTREAM CONSTRUCTION ACTIVITIES BEGIN UNTIL CLASS V IS PLACED ON THE ROADWAY AND THE BOULEVARDS HAVE BEEN RESTORED. INCIDENTAL SEDIMENT CONTROL FOR CATCH BASINS SHALL BE AN INCIDENTAL ITEM FOR WHICH NO DIRECT COMPENSATION WILL BE GIVEN.
2. CONTRACTOR TO INSPECT "INCIDENTAL SEDIMENT CONTROL FOR CATCH BASINS" EVERY 7 DAYS AND WITHIN 24 HOURS AFTER EVERY RAIN EVENT. CONTRACTOR TO REPLACE GEOTEXTILE IF IT BECOMES NONFUNCTIONAL AS A SEDIMENT CONTROL.
3. SUMPS SHALL BE KEPT FUNCTIONAL. CONTRACTOR SHALL CLEAN SUMP IF SEDIMENT IS WITHIN 12 INCHES OF OUTLET PIPE.



LEGEND:

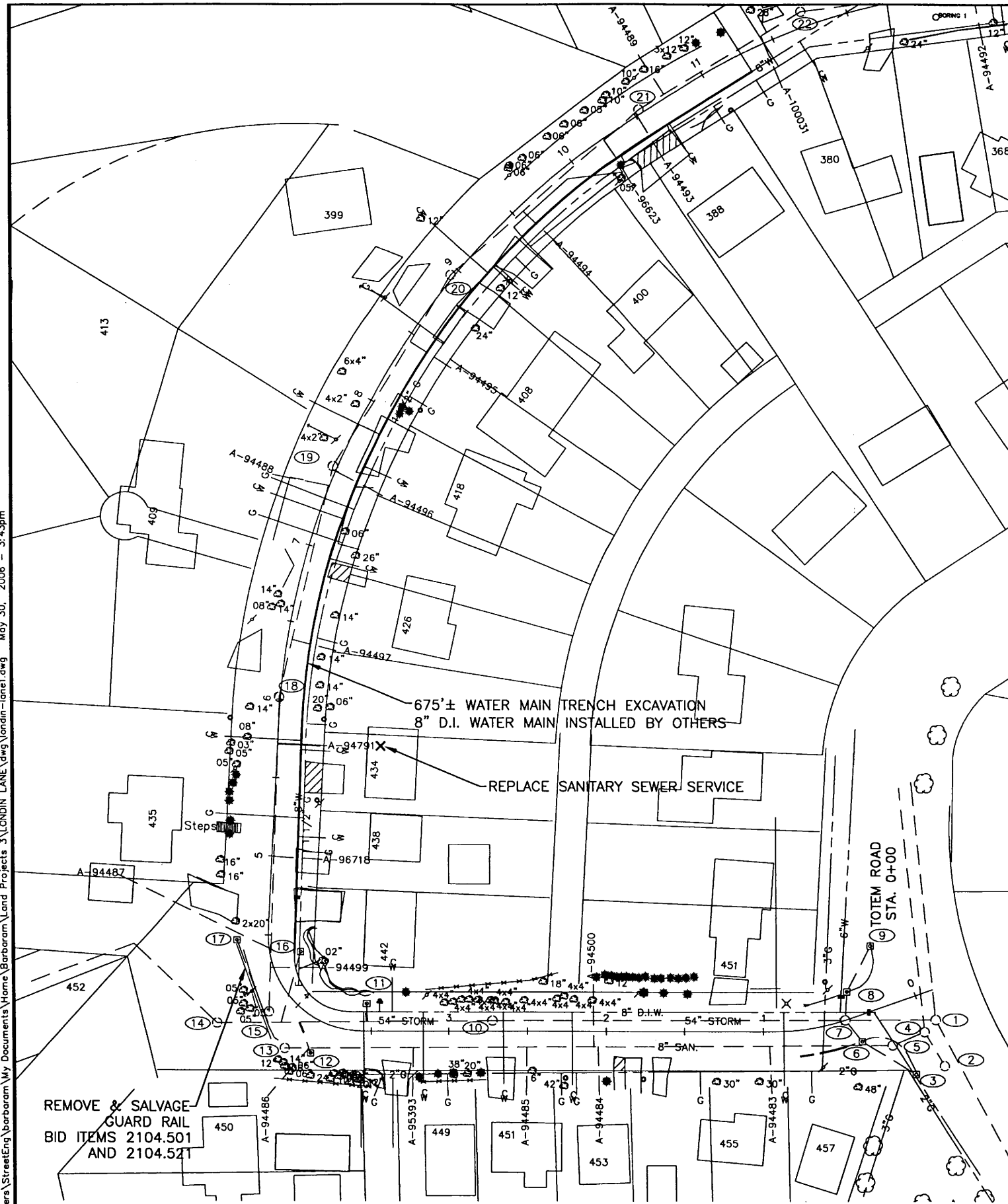
- ➔ DIRECTION OF FLOW
- ② INTERIM SEDIMENT CONTROL FOR CATCH BASINS
- ④ EXISTING CATCH BASINS REQUIRING INCIDENTAL SEDIMENT CONTROL SEE DETAIL (NO. INDICATES CB'S REQUIRING CONTROL.)

28-436

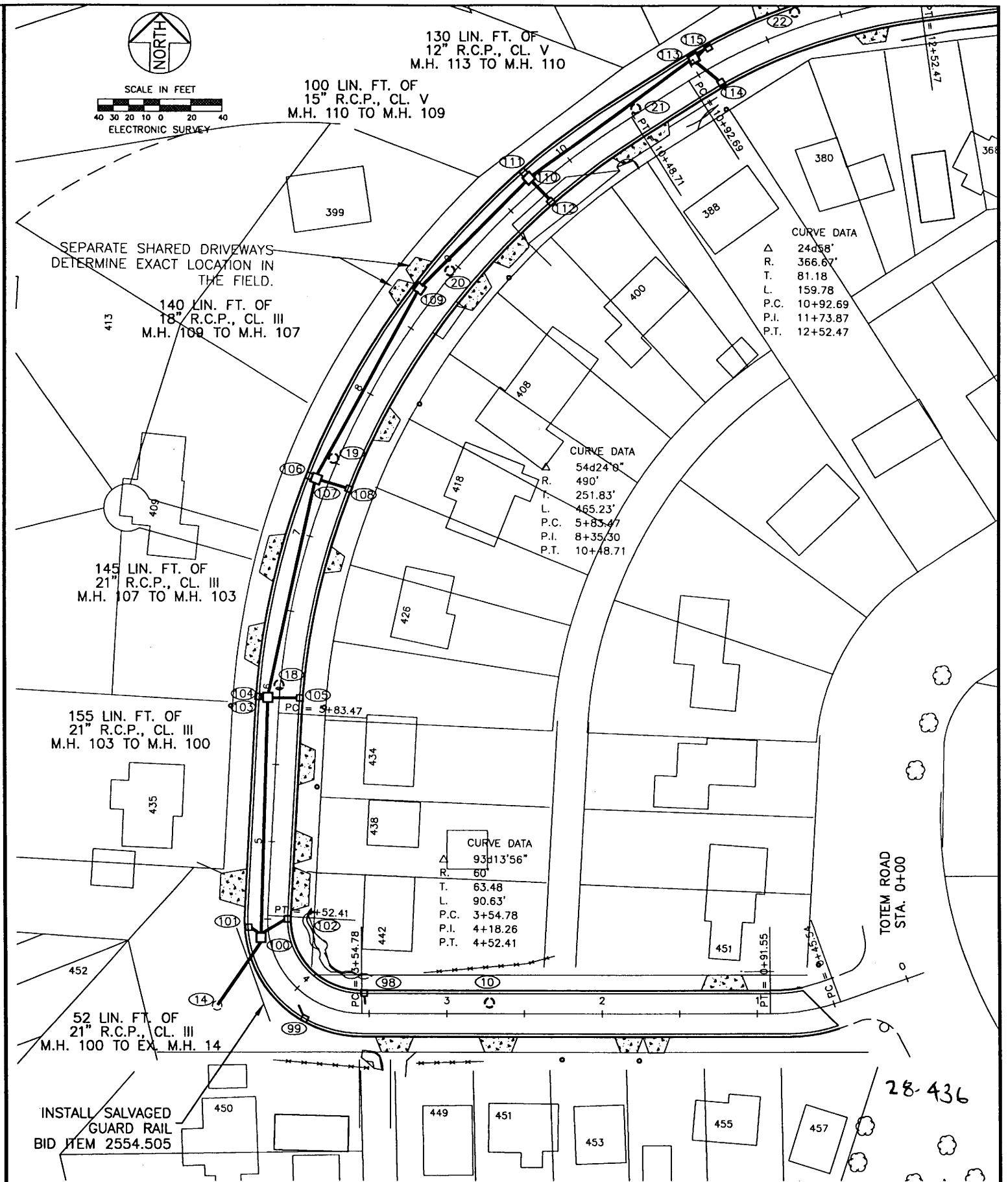
EROSION AND SEDIMENT CONTROL

	DESIGNED	BRM	I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA Signature: <i>Barbara R. Munda</i> Date: 5/22/06 BARBARA R. MUNDAHL Lic. No. 43099	PREPARED BY STREET ENGINEERING DIVISION FOR THE CITY OF ST. PAUL, DEPARTMENT OF PUBLIC WORKS LONDIN LANE/BURLINGTON ROAD	PROJECT: 06-P-1280	STATE AID PROJECT NUMBER: 164-279-001
	DRAWN	BRM			DRAWER: 12	CAD NAME: PROJECTS/CURRENT/LB-EROSION
	APPROVED	BRM			DWG. NO. 1499	DATE: 5/22/06 SHEET NO. 12 OF 24 SHEETS

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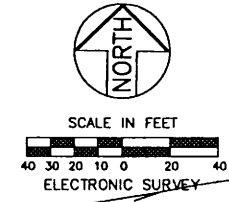


EXISTING AND REMOVAL PLAN



CONSTRUCTION PLAN

BURLINGTON ROAD
S. TOTEM ROAD TO STA. 11+00



SEPARATE SHARED DRIVEWAYS
DETERMINE EXACT LOCATION IN
THE FIELD.

140 LIN. FT. OF
18" R.C.P., CL. III
M.H. 109 TO M.H. 107

145 LIN. FT. OF
21" R.C.P., CL. III
M.H. 107 TO M.H. 103

155 LIN. FT. OF
21" R.C.P., CL. III
M.H. 103 TO M.H. 100

52 LIN. FT. OF
21" R.C.P., CL. III
M.H. 100 TO EX. M.H. 14

130 LIN. FT. OF
12" R.C.P., CL. V
M.H. 113 TO M.H. 110

100 LIN. FT. OF
15" R.C.P., CL. V
M.H. 110 TO M.H. 109

CURVE DATA
 Δ 24058"
 R. 366.67'
 T. 81.18
 L. 159.78
 P.C. 10+92.69
 P.I. 11+73.87
 P.T. 12+52.47

CURVE DATA
 Δ 54d24.8"
 R. 490'
 T. 251.83'
 L. 465.23'
 P.C. 5+83.47
 P.I. 8+35.30
 P.T. 10+48.71

CURVE DATA
 Δ 93d13'56"
 R. 50'
 T. 63.48
 L. 90.63'
 P.C. 3+54.78
 P.I. 4+18.26
 P.T. 4+52.41

28-436

DESIGNED	BRM
DRAWN	BRM
APPROVED	BRM

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

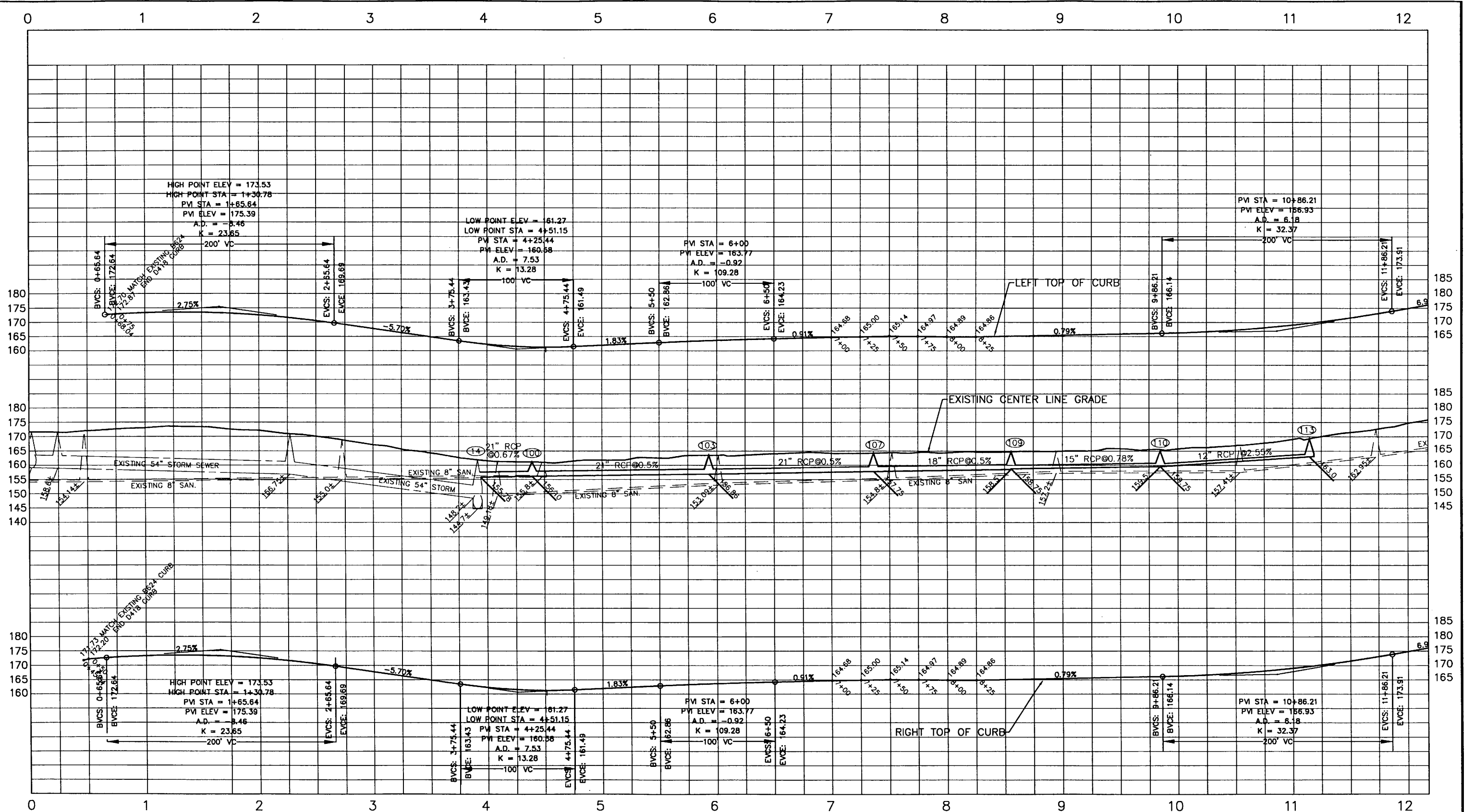
Signature: *Barbara R. Mundahl* Date: 5/30/06
 BARBARA R. MUNDAHL Lic. No. 43099

PREPARED BY STREET ENGINEERING DIVISION FOR THE CITY OF ST. PAUL, DEPARTMENT OF PUBLIC WORKS

LONDIN LANE/BURLINGTON ROAD

PROJECT: 06-P-1280	STATE AID PROJECT NUMBER: 164-279-001
DRAWER: 12	CAD NAME: PROJECTS/CURRENT/LONDIN-LANE1.DWG
DWG. NO. 1499	DATE: 5/30/06 SHEET NO. 13 OF 24 SHEETS

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28-436

BURLINGTON ROAD PROFILE

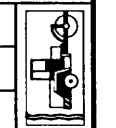
DESIGNED	BRM
DRAWN	BRM
APPROVED	BRM

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA
 Signature: *Barbara R. Mundahl* Date: 5/30/06
 BARBARA R. MUNDHAL Lic. No. 43099

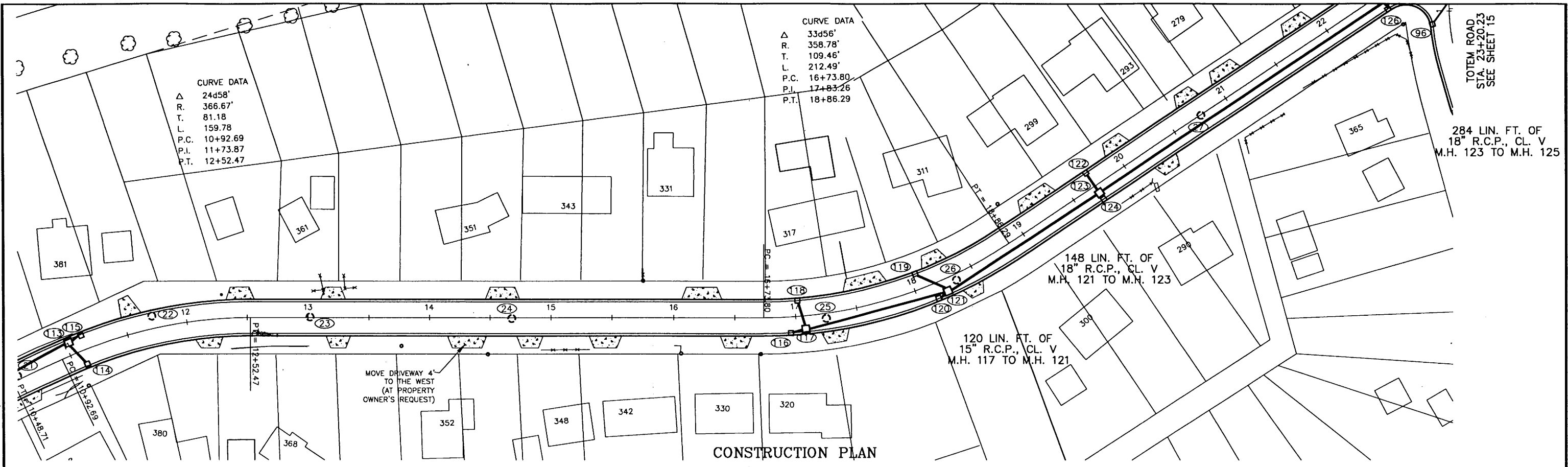
PREPARED BY STREET ENGINEERING DIVISION FOR THE CITY OF ST. PAUL, DEPARTMENT OF PUBLIC WORKS
LONDIN LANE/BURLINGTON ROAD

PROJECT: 06-P-1280
 DRAWER: 12
 DWG. NO. 1499

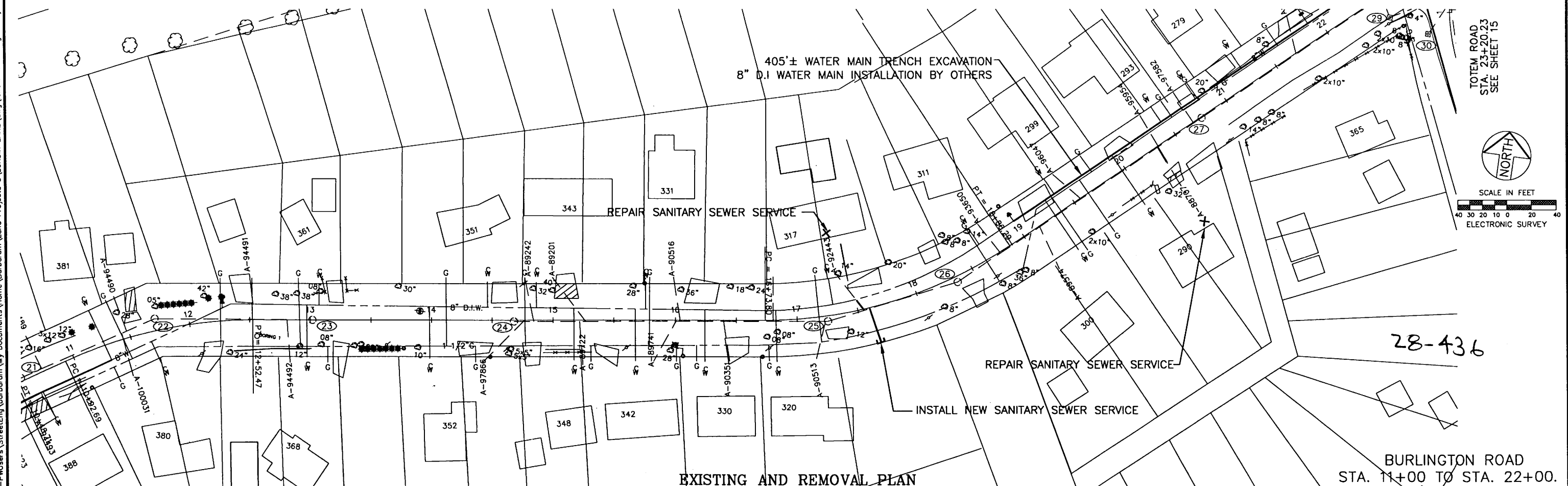
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 CAD NAME: PROJECTS/CURRENT/LONDIN-LANE1.DWG
 DATE: 5/30/06 SHEET NO. 14 OF 24 SHEETS



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CONSTRUCTION PLAN

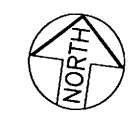


EXISTING AND REMOVAL PLAN

TOTEM ROAD
STA. 23+20.23
SEE SHEET 15

284 LIN. FT. OF
18\"/>

TOTEM ROAD
STA. 23+20.23
SEE SHEET 15



SCALE IN FEET
40 30 20 10 0 20 40
ELECTRONIC SURVEY

28-436

BURLINGTON ROAD
STA. 11+00 TO STA. 22+00.

	DESIGNED	BRM
	DRAWN	BRM
	APPROVED	BRM

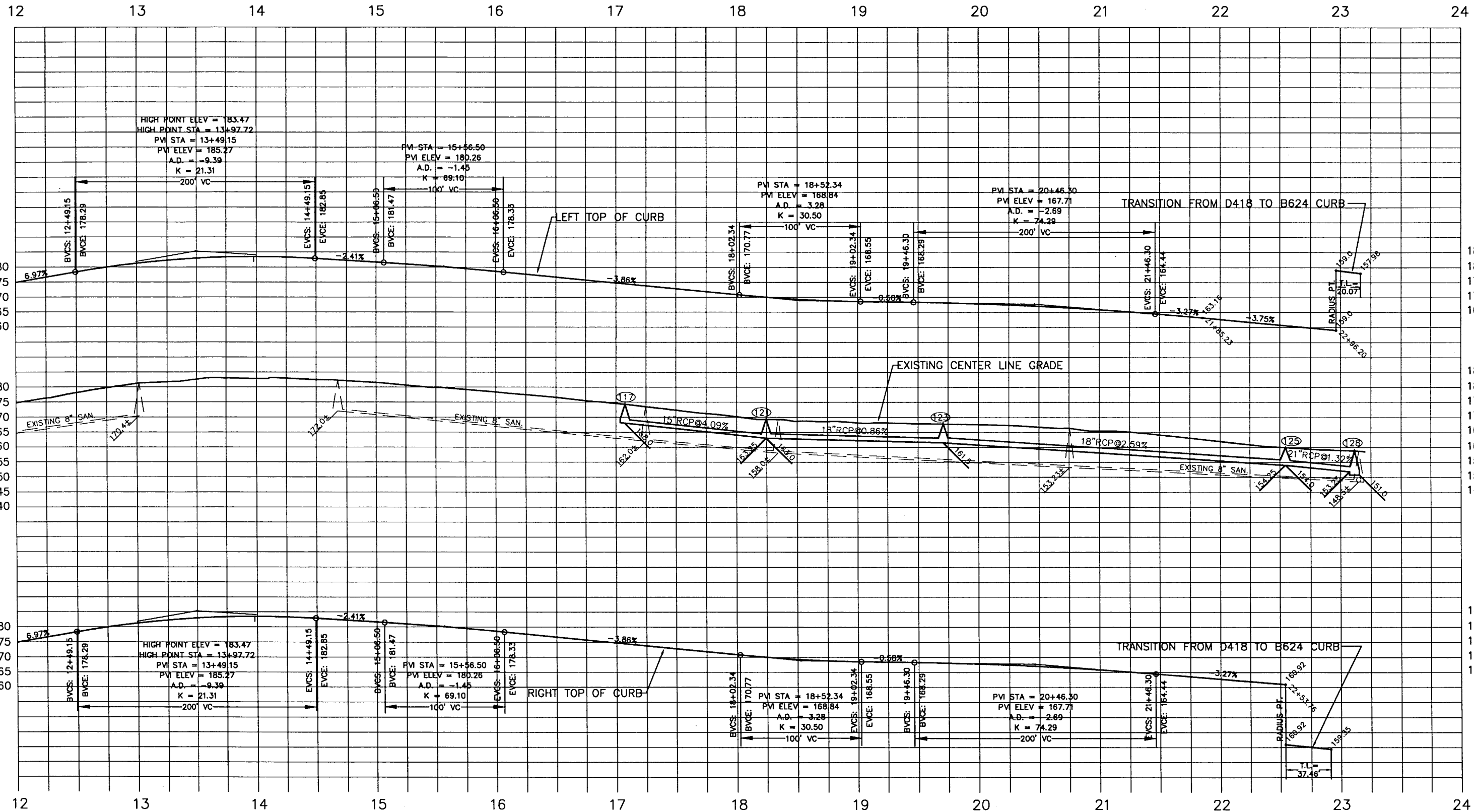
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

Signature: *Barbara R. Mundaahl* Date: 5/30/06
 BARBARA R. MUNDAHL Lic. No. 43099

PREPARED BY STREET ENGINEERING DIVISION FOR THE CITY OF ST. PAUL, DEPARTMENT OF PUBLIC WORKS

LONDIN LANE/BURLINGTON ROAD

PROJECT: 06-P-1280	STATE AID PROJECT NUMBER: 164-279-001
DRAWER: 12	CAD NAME: PROJECTS/CURRENT/LONDIN-LANE1.DWG
DWG. NO. 1499	DATE: 5/30/06 SHEET NO. 15 OF 24 SHEETS



28-436

BURLINGTON ROAD PROFILE

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DESIGNED	BRM
DRAWN	BRM
APPROVED	BRM

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

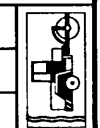
Signature: *Barbara R. Munda* Date: 5/30/06
 BARBARA R. MUNDAHL Lic. No. 43099

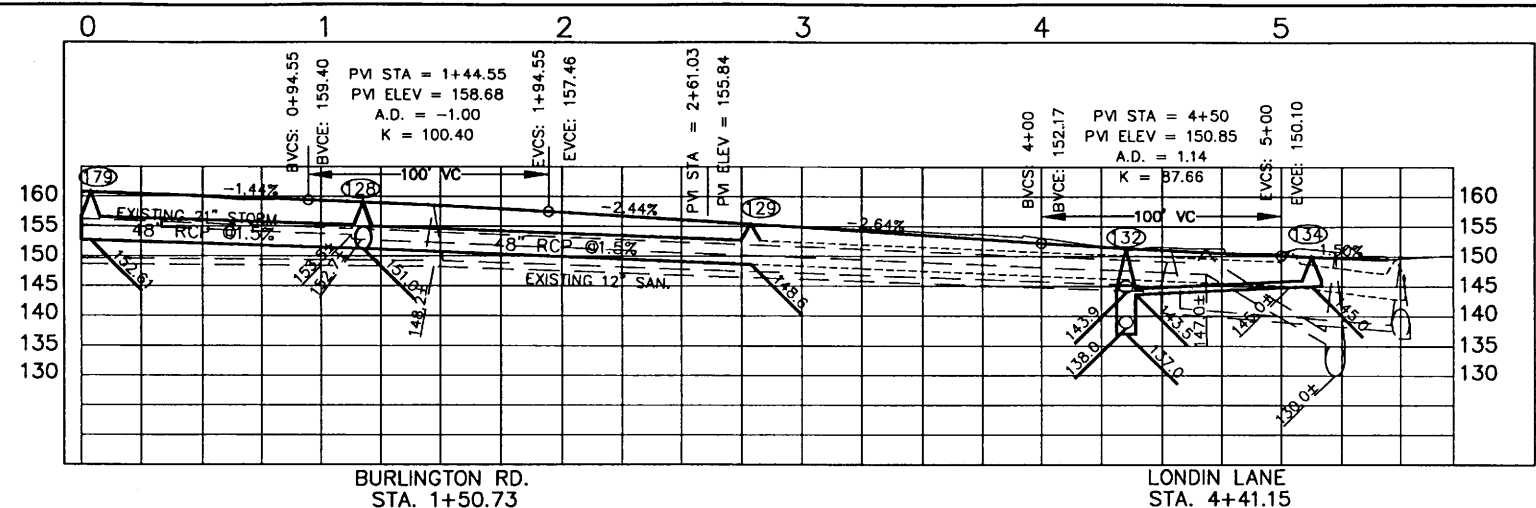
PREPARED BY STREET ENGINEERING DIVISION FOR THE CITY OF ST. PAUL, DEPARTMENT OF PUBLIC WORKS

LONDIN LANE/BURLINGTON ROAD

PROJECT: 06-P-1280
 DRAWER: 12
 DWG. NO. 1499

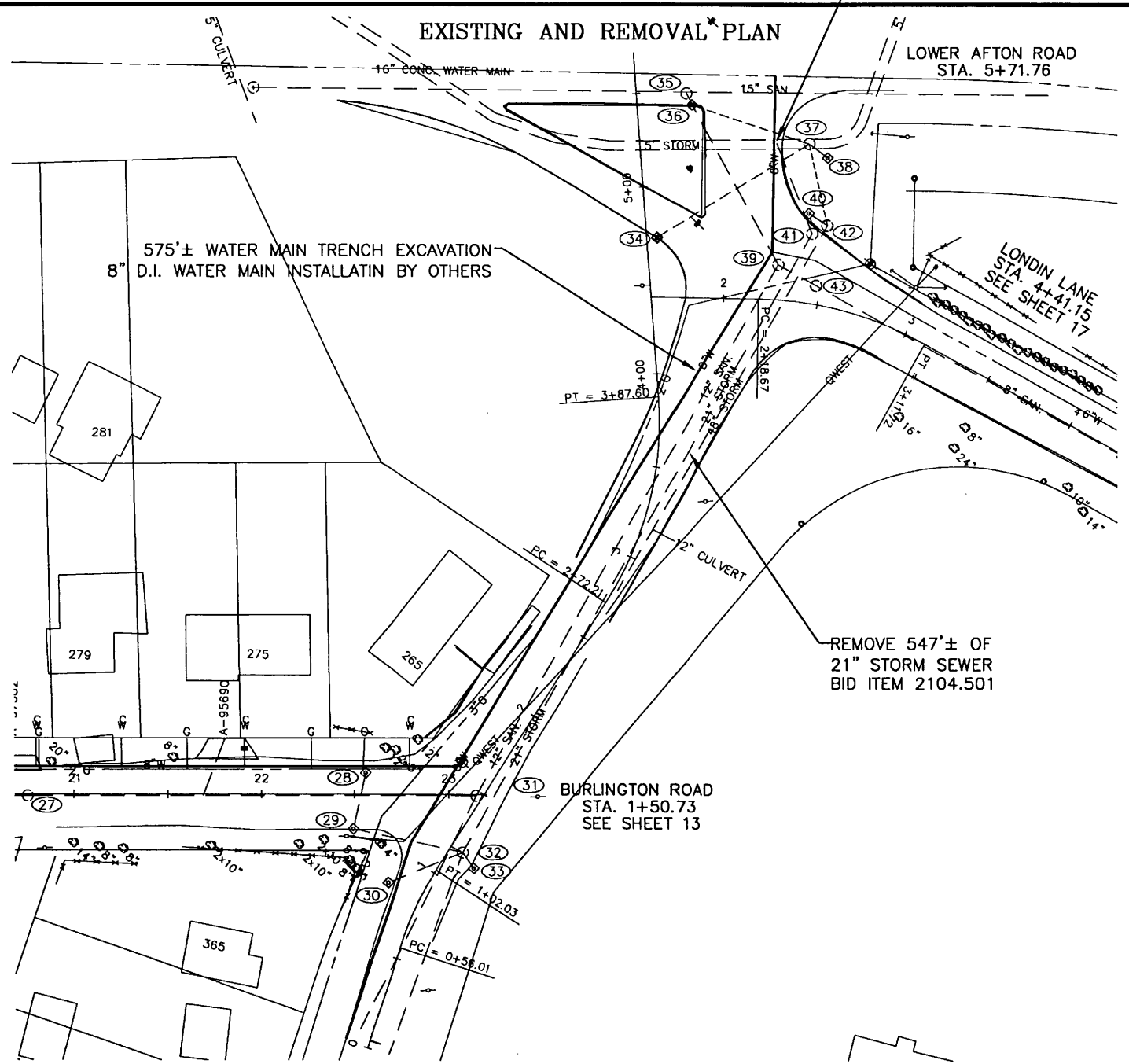
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 CAD NAME: PROJECTS/CURRENT/LONDIN-LANE1.DWG
 DATE: 5/30/06 SHEET NO. 16 OF 24 SHEETS



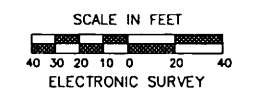
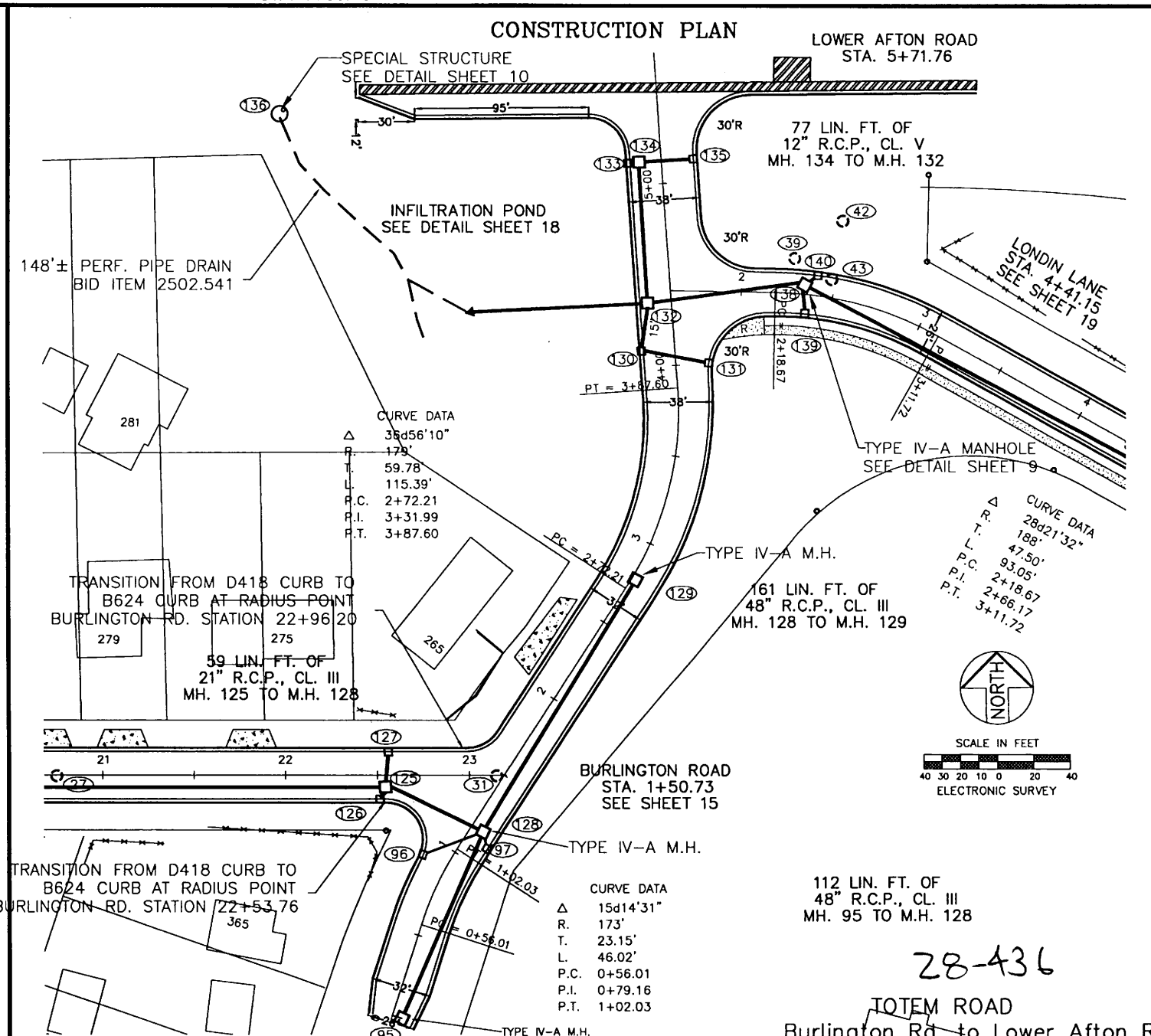


BULKHEAD HOLE IN 5' STORM SEWER

EXISTING AND REMOVAL PLAN



CONSTRUCTION PLAN



28-436

TOTEM ROAD
Burlington Rd. to Lower Afton Rd.

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DESIGNED	BRM
DRAWN	BRM
APPROVED	BRM

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

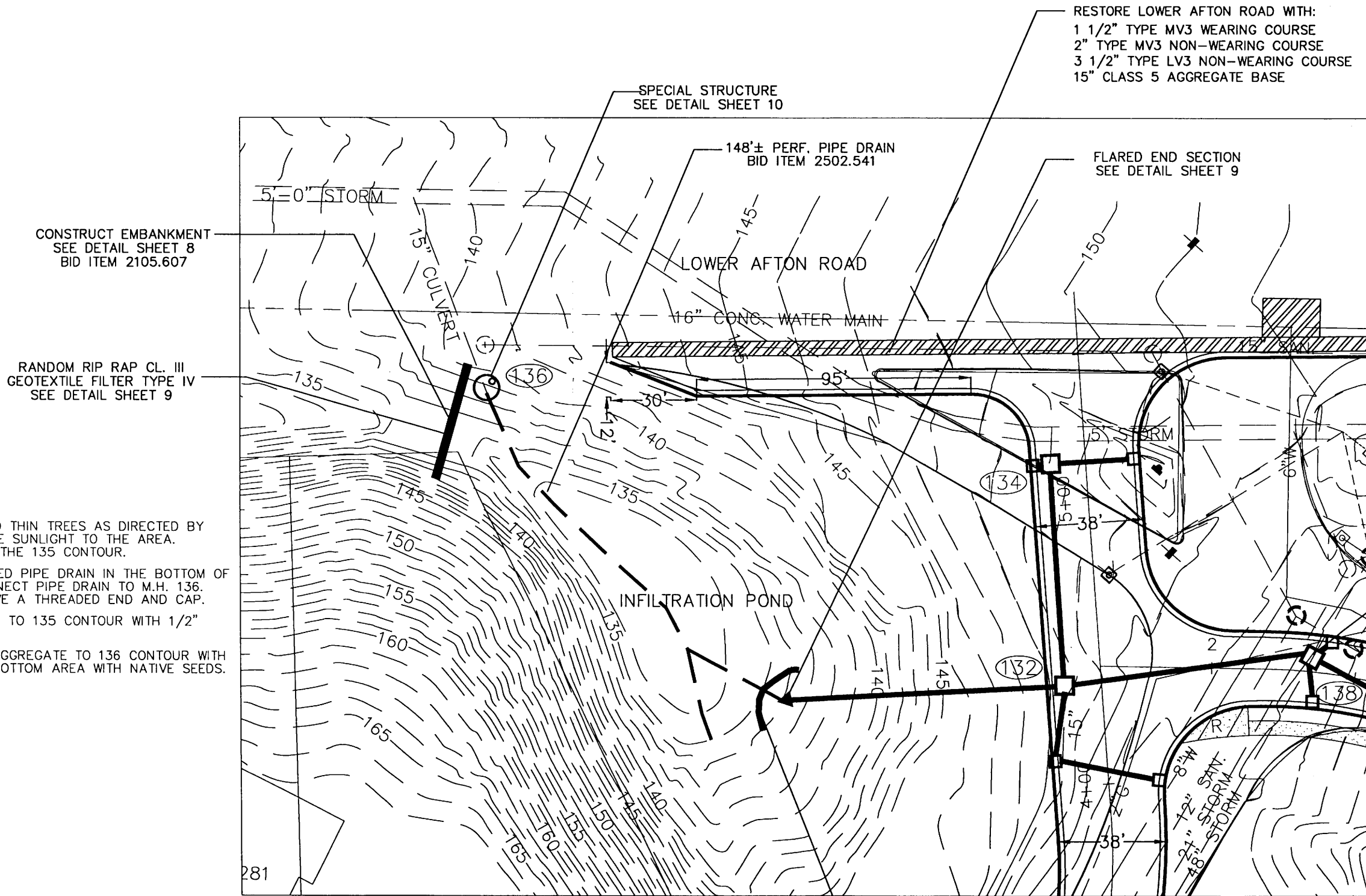
Signature: *Barbara R. Munda* Date: 5/30/06
 BARBARA R. MUNDAH Lic. No. 43099

PREPARED BY STREET ENGINEERING DIVISION FOR THE CITY OF ST. PAUL, DEPARTMENT OF PUBLIC WORKS

LONDIN LANE/BURLINGTON ROAD

PROJECT: 06-P-1280	STATE AID PROJECT NUMBER: 164-279-001
DRAWER: 12	CAD NAME: PROJECTS/CURRENT/LONDIN-LANE1.DWG
DWG. NO. 1499	DATE: 5/30/06 SHEET NO. 17 OF 24 SHEETS

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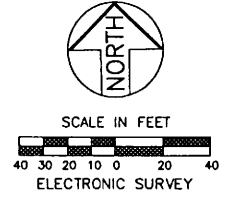


RESTORE LOWER AFTON ROAD WITH:
 1 1/2" TYPE MV3 WEARING COURSE
 2" TYPE MV3 NON-WEARING COURSE
 3 1/2" TYPE LV3 NON-WEARING COURSE
 15" CLASS 5 AGGREGATE BASE

CONSTRUCT EMBANKMENT
 SEE DETAIL SHEET 8
 BID ITEM 2105.607

RANDOM RIP RAP CL. III
 GEOTEXTILE FILTER TYPE IV
 SEE DETAIL SHEET 9

- INFILTRATION AREA NOTES:
1. REMOVE BUCKTHORN AND THIN TREES AS DIRECTED BY THE ENGINEER, TO INCREASE SUNLIGHT TO THE AREA. REMOVE ALL TREES BELOW THE 135 CONTOUR.
 2. INSTALL A 6" PERFORATED PIPE DRAIN IN THE BOTTOM OF THE AREA AS SHOWN. CONNECT PIPE DRAIN TO M.H. 136. THE PIPE DRAIN SHALL HAVE A THREADED END AND CAP.
 3. COVER BOTTOM OF AREA TO 135 CONTOUR WITH 1/2" COARSE FILTER AGGREGATE.
 4. COVER COARSE FILTER AGGREGATE TO 136 CONTOUR WITH PLANTING MEDIUM. PLANT BOTTOM AREA WITH NATIVE SEEDS. & PLUGS.



TYPE IV-A MANHOLE
 CONSTRUCT AROUND
 EXISTING 48" R.C.P.
 SEE DETAIL SHEET 9

LONDIN LANE

TOTEM ROAD

95 LIN. FT. OF
 12" R.C.P., CL.V
 M.H. 132 TO POND OUTLET

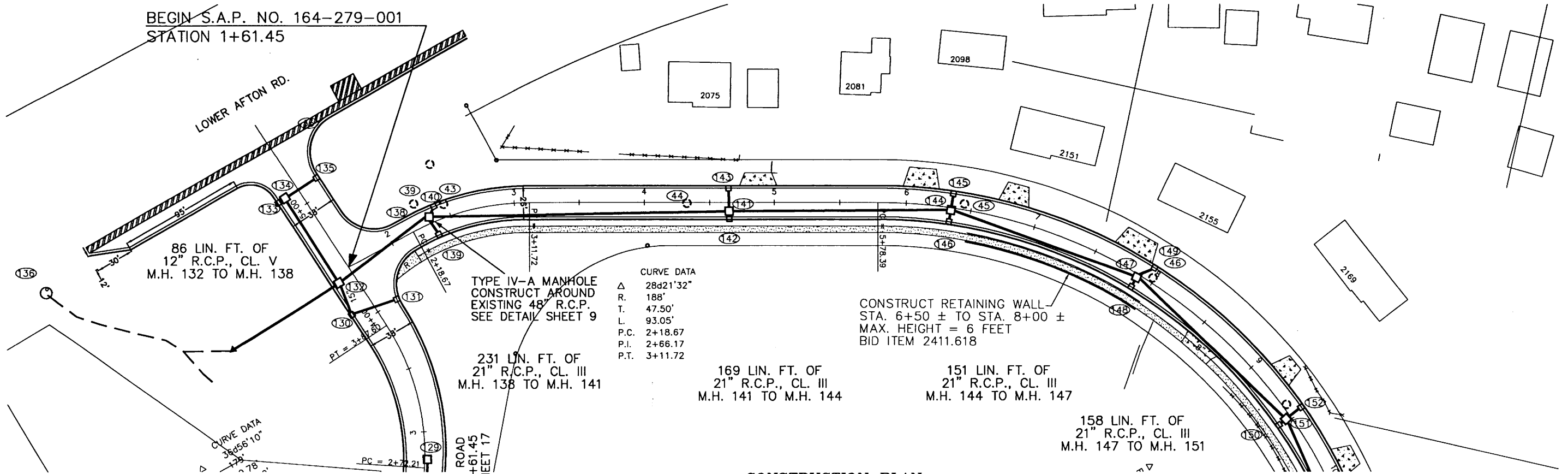
INSTALL HEAVY DUTY SILT FENCE
 AS DIRECTED BY THE ENGINEER.

28-436

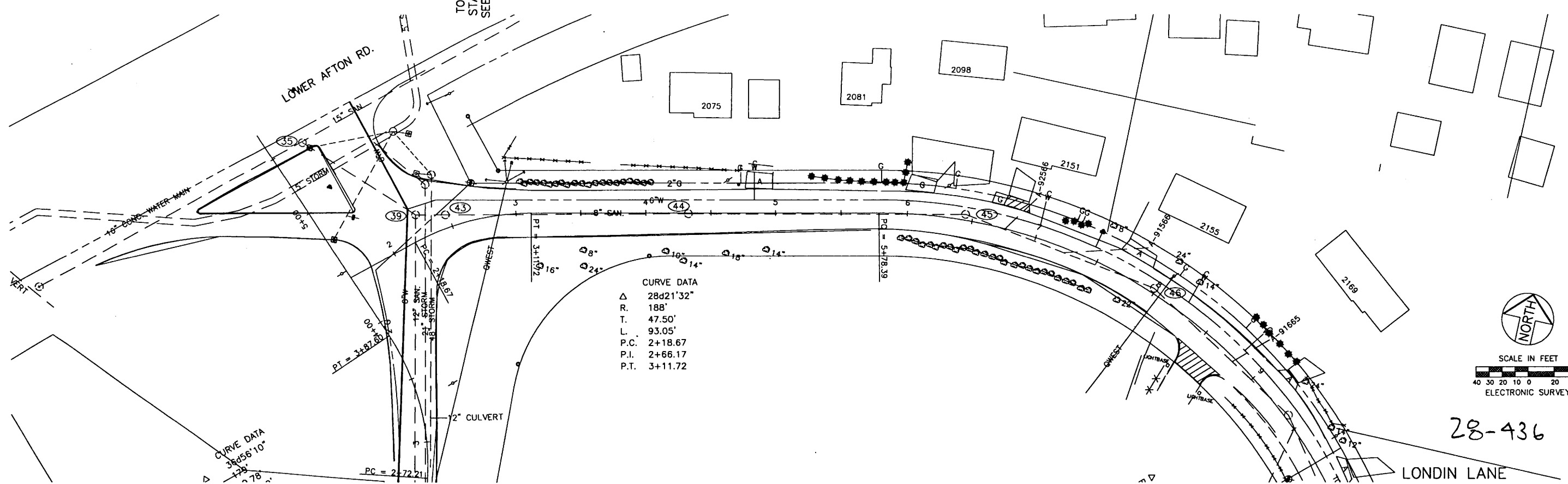
INFILTRATION POND

	DESIGNED	BRM	I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA Signature: <i>Barbara R. Mundaahl</i> Date: 5/30/06 BARBARA R. MUNDAHL Lic. No. 43099	PREPARED BY STREET ENGINEERING DIVISION FOR THE CITY OF ST. PAUL, DEPARTMENT OF PUBLIC WORKS LONDIN LANE/BURLINGTON ROAD	PROJECT:	06-P-1280	STATE AID PROJECT NUMBER:	164-279-001
	DRAWN	BRM			DRAWER:	12	CAD NAME:	PROJECTS/CURRENT/LONDIN-LANE1.DWG
	APPROVED	BRM			DWG. NO.	1499	DATE:	5/30/06

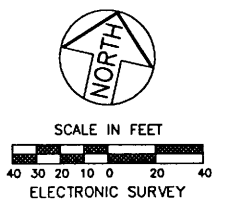
BEGIN S.A.P. NO. 164-279-001
STATION 1+61.45



CONSTRUCTION PLAN



EXISTING AND REMOVAL PLAN



28-436

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DESIGNED	BRM
DRAWN	BRM
APPROVED	BRM

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

Signature: *Barbara R. MundaHL* Date: 5/30/06
BARBARA R. MUNDAHL Lic. No. 43099

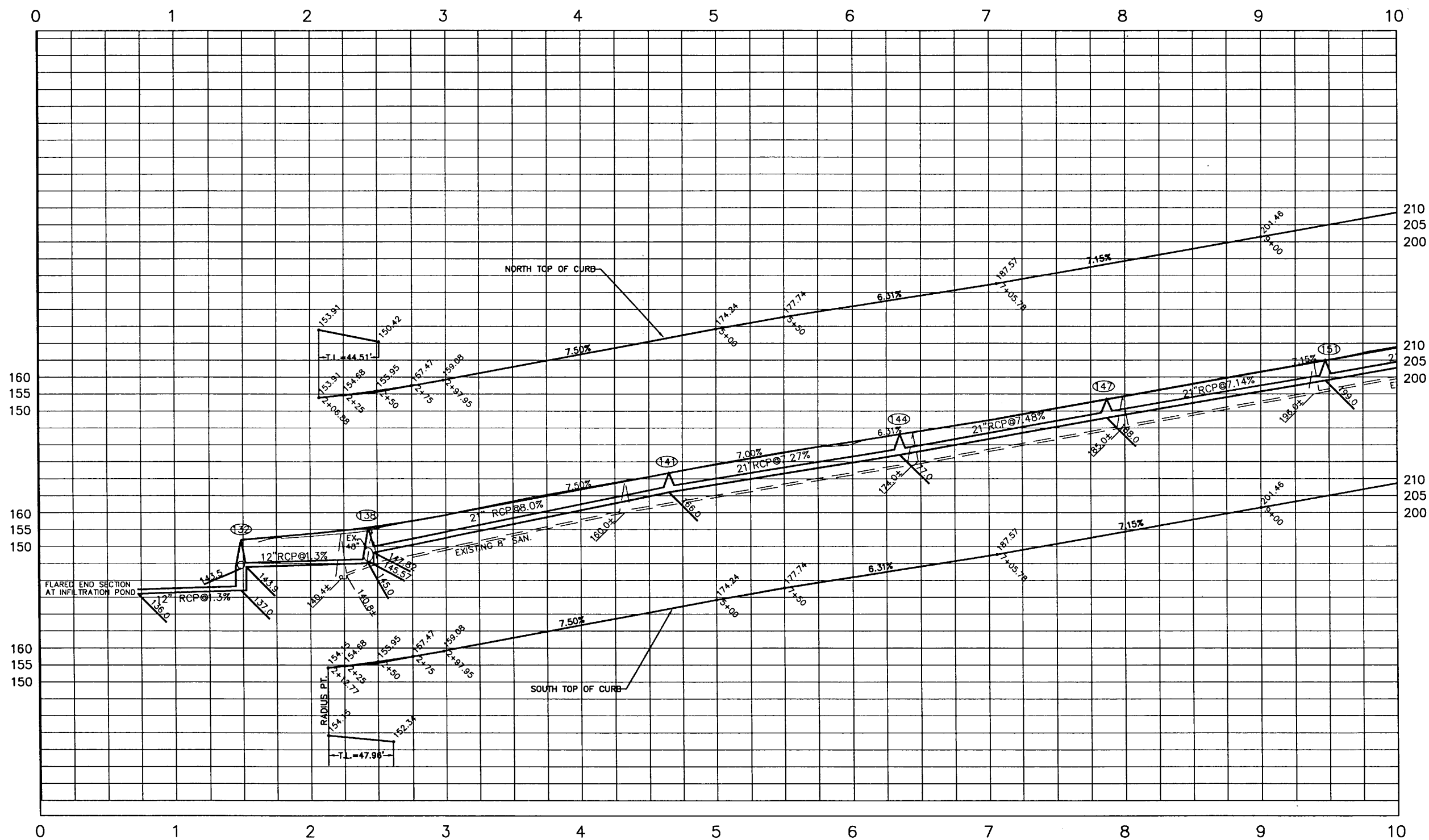
PREPARED BY STREET ENGINEERING DIVISION FOR THE CITY OF ST. PAUL, DEPARTMENT OF PUBLIC WORKS

LONDIN LANE/BURLINGTON ROAD

PROJECT: 06-P-1280	STATE AID PROJECT NUMBER: 164-279-001
DRAWER: 12	DWG. NAME: PROJECTS/CURRENT/LONDIN-LANE1.DWG
DWG. NO. 1499	DATE: 5/30/06 SHEET NO. 19 OF 24 SHEETS



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TOTEM ROAD
STA. 1+61.45

28436

LONDIN LANE
Lower Afton Road to Sta. 9+00

DESIGNED	BRM
DRAWN	BRM
APPROVED	BRM

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

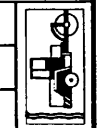
Signature: *Barbara R. Munda* Date: 5/30/06
 BARBARA R. MUNDAHL Lic. No. 43099

PREPARED BY STREET ENGINEERING DIVISION FOR THE CITY OF ST. PAUL, DEPARTMENT OF PUBLIC WORKS

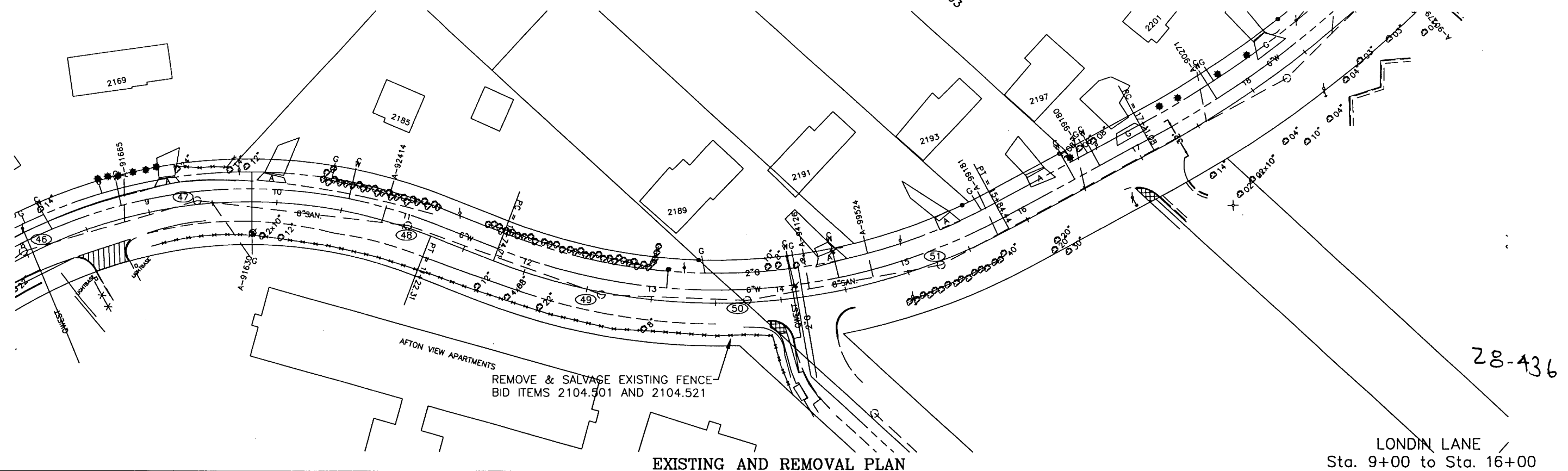
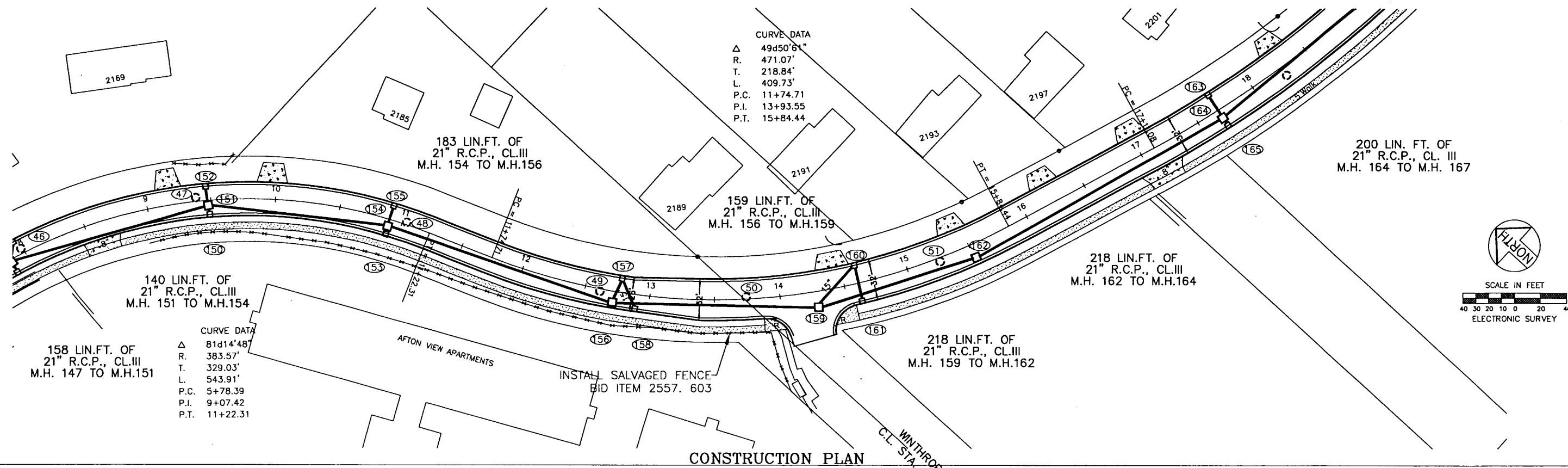
LONDIN LANE/BURLINGTON ROAD

PROJECT: 06-P-1280
 DRAWER: 12
 DWG. NO. 1499

STATE AID PROJECT NUMBER: 164-279-001
 CAD NAME: PROJECTS/CURRENT/LONDIN-LANE1.DWG
 DATE: 5/30/06 SHEET NO. 20 OF 24 SHEETS



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EXISTING AND REMOVAL PLAN

LONDIN LANE / Sta. 9+00 to Sta. 16+00

DESIGNED	BRM
DRAWN	BRM
APPROVED	BRM

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

Signature: *Barbara R. Mundaahl* Date: 5/30/06
 BARBARA R. MUNDAHL Lic. No. 43099

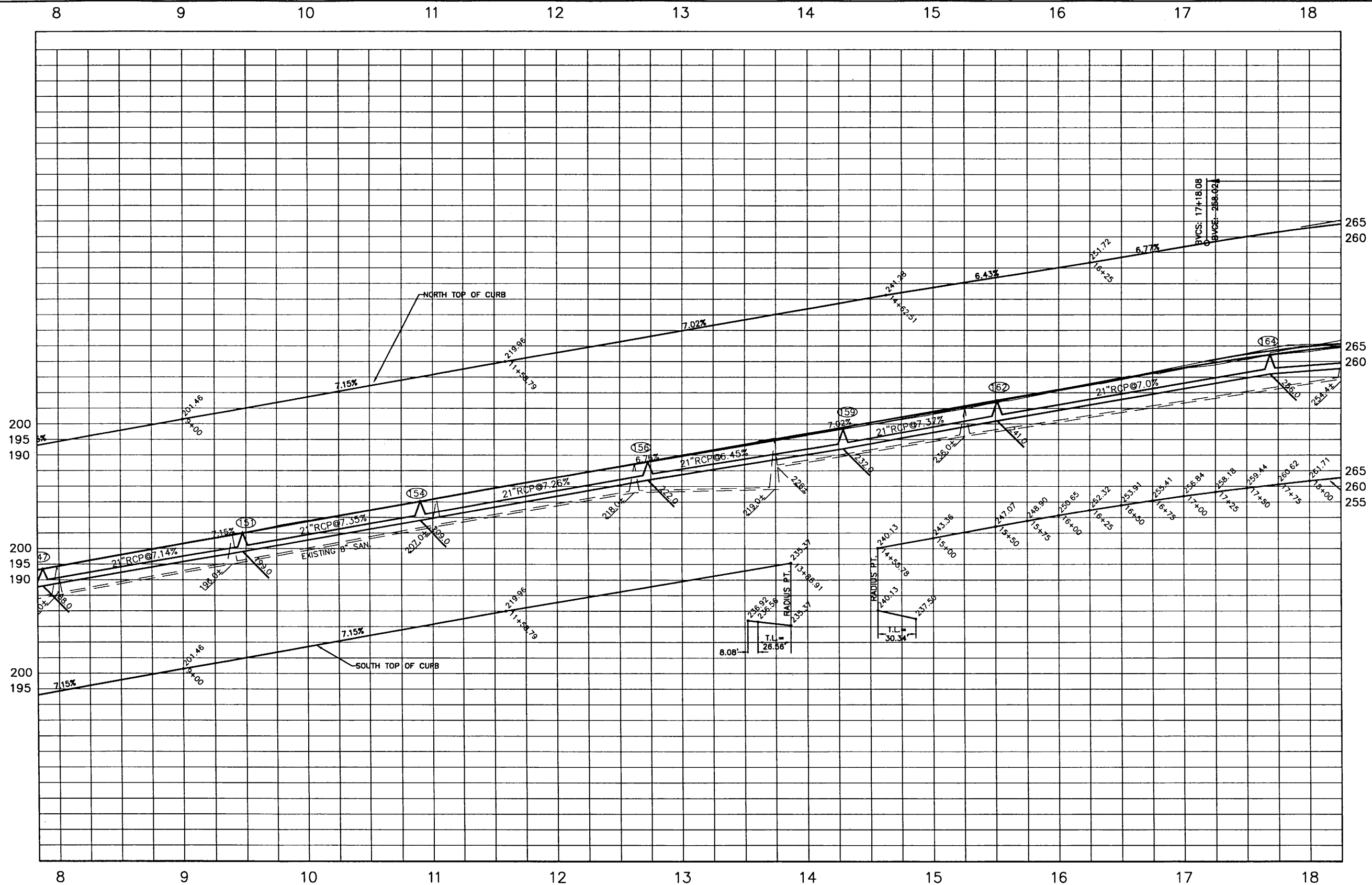
PREPARED BY STREET ENGINEERING DIVISION FOR THE CITY OF ST. PAUL, DEPARTMENT OF PUBLIC WORKS

LONDIN LANE / BURLINGTON ROAD

PROJECT: 06-P-1280	STATE AID PROJECT NUMBER: 164-279-001
DRAWER: 12	DWG. NO. 1499
DATE: 5/30/06	SHEET NO. 21 OF 24 SHEETS



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WINTHROP LANE
STA. 14+21.93

28-436

LONDIN LANE
Sta. 9+00 to Sta. 16+00

	DESIGNED	BRM
	DRAWN	BRM
	APPROVED	BRM

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

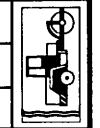
Signature: *Barbara R. Mundaahl* Date: 5/30/06
BARBARA R. MUNDAHL Lic. No. 43099

PREPARED BY STREET ENGINEERING DIVISION FOR THE CITY OF ST. PAUL, DEPARTMENT OF PUBLIC WORKS

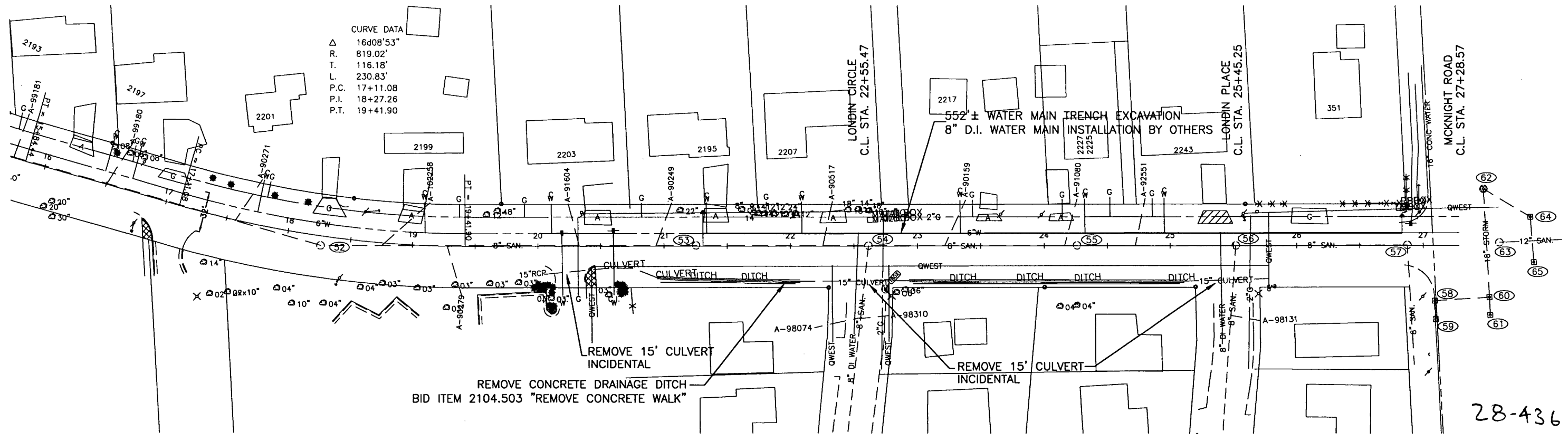
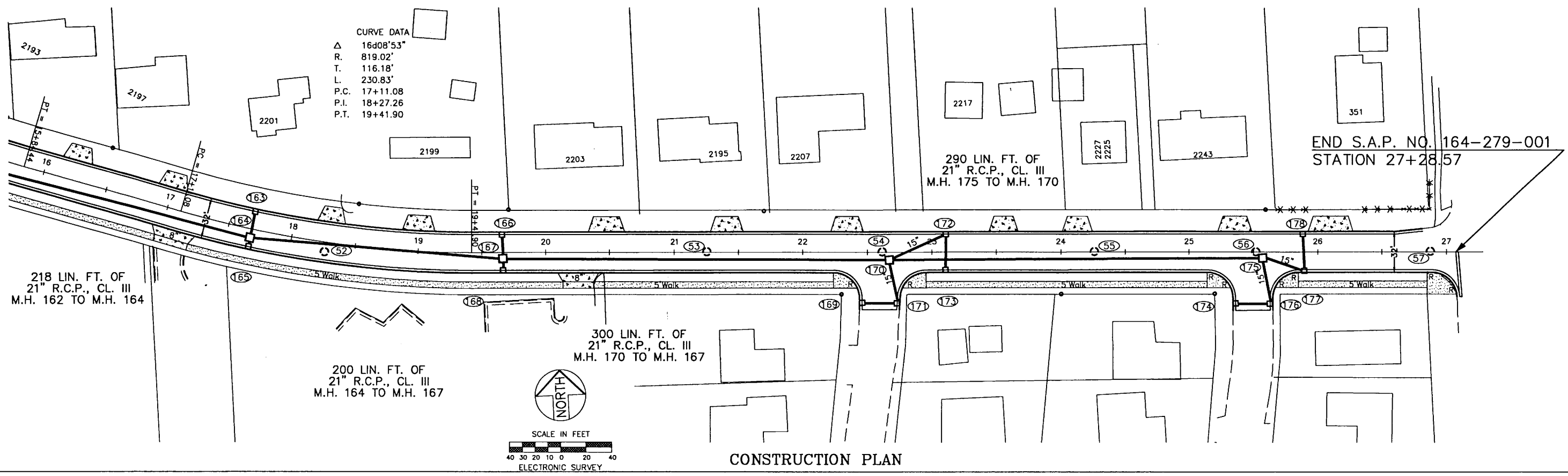
LONDIN LANE/ BURLINGTON ROAD

PROJECT: 06-P-1280
DRAWER: 12
DWG. NO. 1499

STATE AID PROJECT NUMBER: 164-279-001
CAD NAME: PROJECTS/CURRENT/LONDIN-LANE1.DWG
DATE: 5/30/06
SHEET NO. 22 OF 24 SHEETS



\\atlantia\stp-pw\users\streeteng\barbara\My Documents\barbara\Land Projects\3\LONDIN LANE.dwg\londin-lane1.dwg May 30, 2006 - 3:49pm

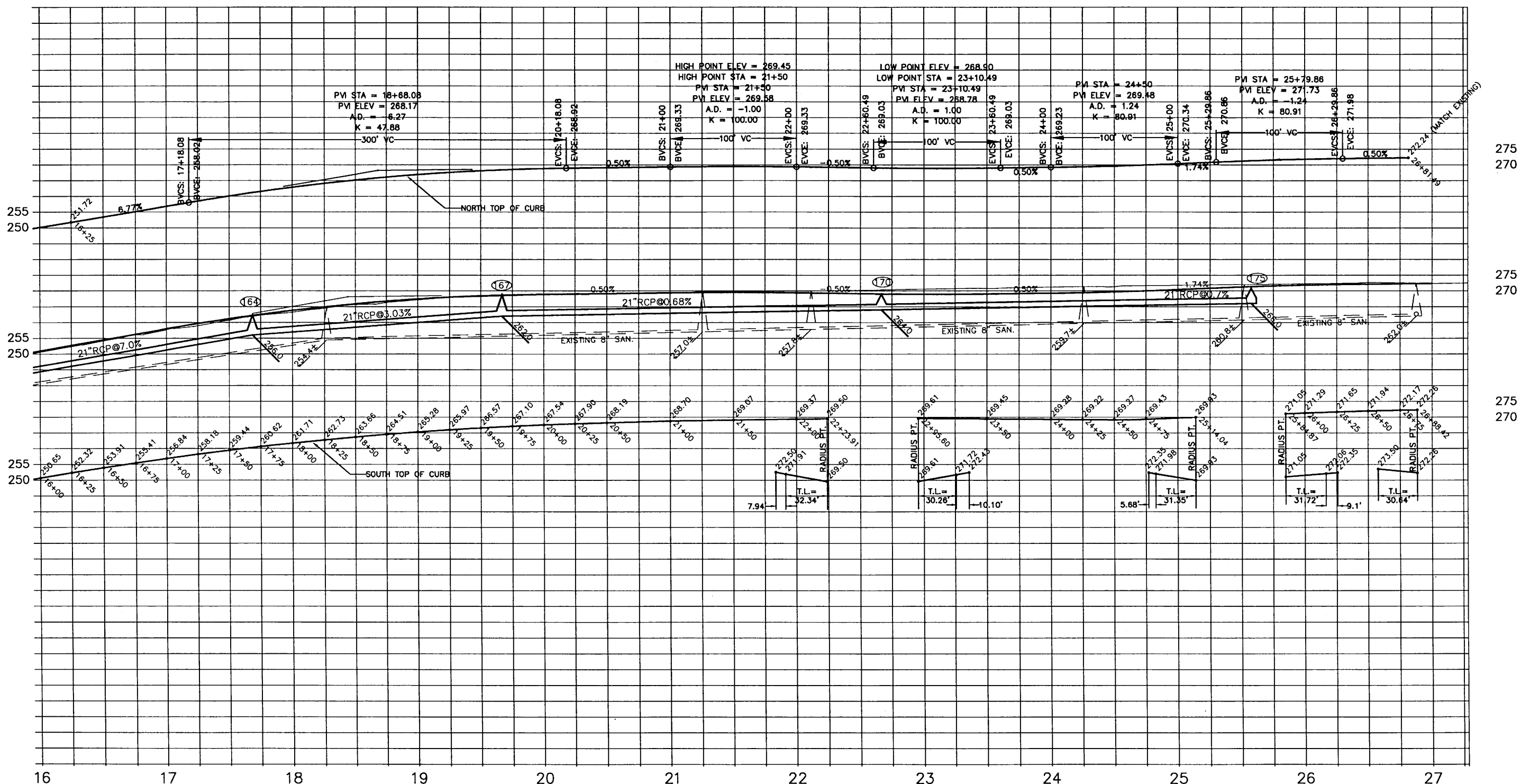


28-436

EXISTING AND REMOVAL PLAN

LONDIN LANE
Sta. 16+00 to McKnight Rd.

	DESIGNED	BRM	I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA Signature: <i>Barbara R. Munda</i> Date: 5/30/06 BARBARA R. MUNDAHL Lic. No. 43099	PREPARED BY STREET ENGINEERING DIVISION FOR THE CITY OF ST. PAUL, DEPARTMENT OF PUBLIC WORKS LONDIN LANE/ BURLINGTON ROAD	PROJECT:	06-P-1280	STATE AID PROJECT NUMBER:	164-279-001
	DRAWN	BRM			DRAWER:	12	MAP NAME:	PROJECTS/CURRENT/LONDIN-LANE1.DWG
	APPROVED	BRM			DWG. NO.	1499	DATE:	5/30/06



LONDIN CIRCLE
STA. 22+55.47

LONDIN PLACE
STA. 25+45.25

MCKNIGHT RD.
STA. 27+28.57

28-436

LONDIN LANE
Sta. 16+00 to McKnight Rd.

\\atlantis\stp-pw\users\streeteng\barbara\my documents\home\barbara\land projects\3\londin lane\dwg\londin-lane1.dwg May 30, 2006 - 3:50pm

DESIGNED	BRM
DRAWN	BRM
APPROVED	BRM

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

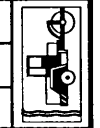
Signature: *Barbara R. MundaHL* Date: 5/30/06 Lic. No. 43099

PREPARED BY STREET ENGINEERING DIVISION FOR THE CITY OF ST. PAUL, DEPARTMENT OF PUBLIC WORKS

LONDIN LANE/ BURLINGTON ROAD

PROJECT: 06-P-1280
DRAWER: 12
DWG. NO. 1499

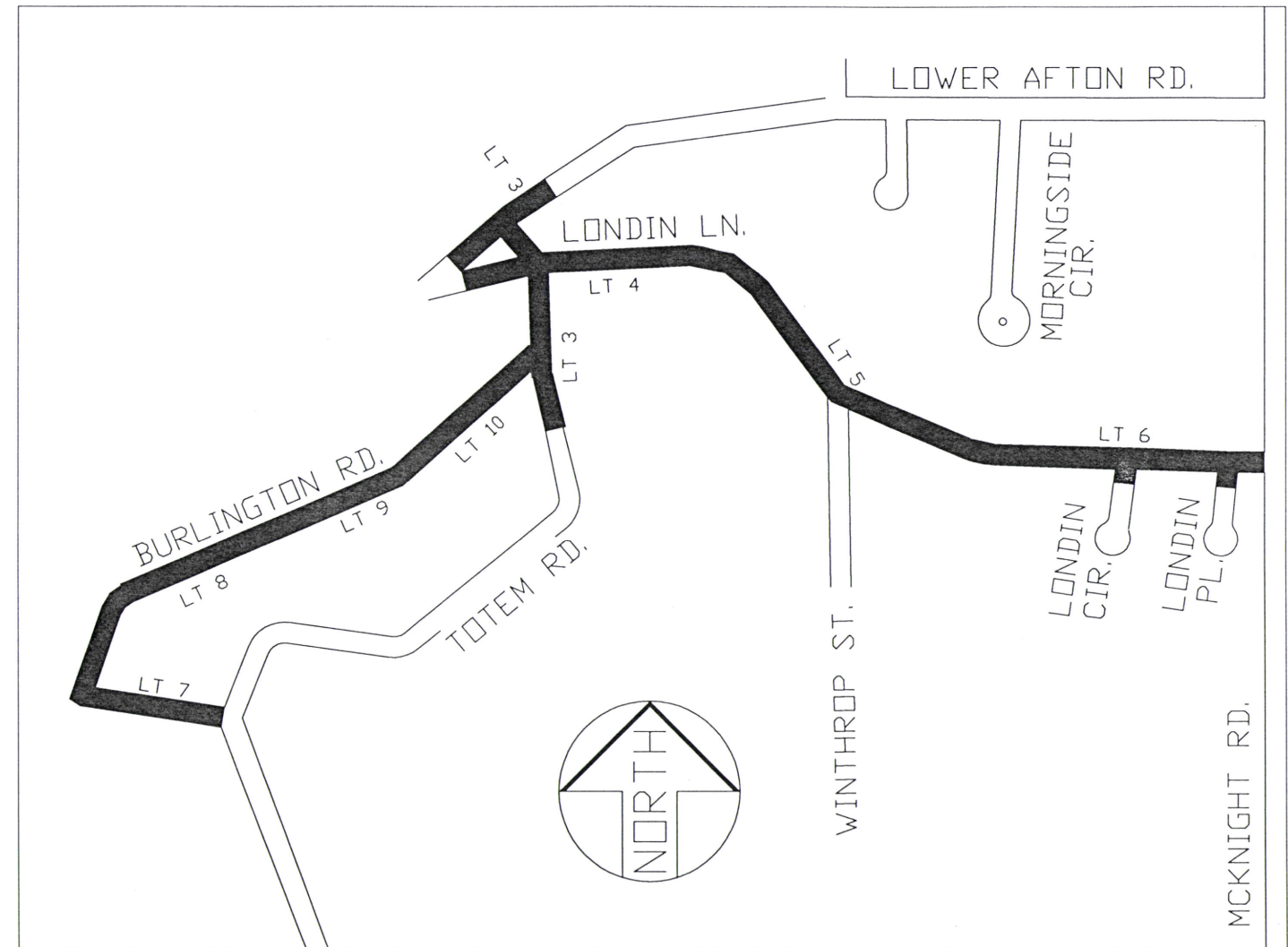
STATE AID PROJECT NUMBER: 164-279-001
CAD NAME: PROJECTS/CURRENT/LONDIN-LANE1.DWG
DATE: 5/30/06 SHEET NO. 24 OF 24 SHEETS



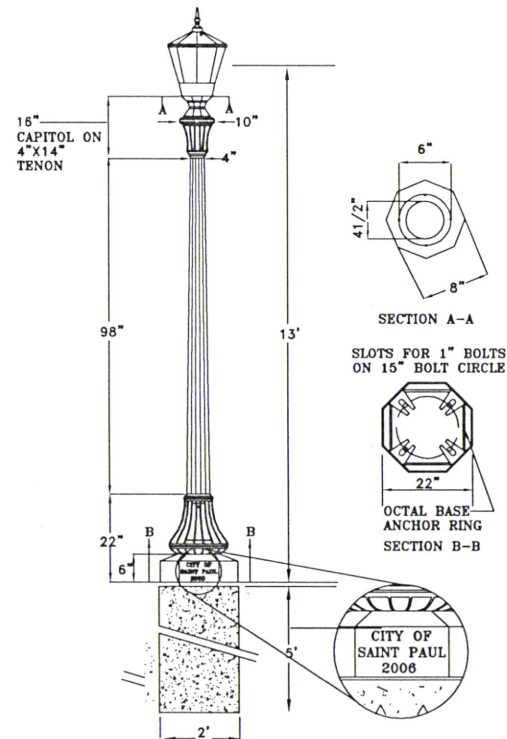
LIGHTING LEGEND

	PULLBOX TO BE INSTALLED
	EXISTING PULLBOX
	UTILITY/POWER POLE
	FEEDPOINT TO BE INSTALLED
	PHOTOELECTRIC CONTROL TO BE INSTALLED
	PROVIDE CONDUIT STUB
	EXISTING LIGHT STANDARD
	LIGHT STANDARD TO BE INSTALLED, X INDICATES THE UNIT NUMBER
	NEW CONDUIT
	EXISTING CONDUIT
	CONDUIT END CAPPED
	3-1/c #6 A.W.G., 1-1/c #8 INSULATED
	3-1/c #4 A.W.G., 1-1/c #8 INSULATED
	REMOVE 3-1/c #6 A.W.G., INSTALL 3-1/c #4 A.W.G., 1-1/c #8 INSULATED
	1-1/c #8 BARE OR INSULATED
	FIRE HYDRANT
	TREE
	GROUND ROD TO BE INSTALLED
	EXISTING SIGNAL PEDESTAL FOUNDATIONS
	CONTROLLER CABINET ASSEMBLY & FOUNDATION - IN PLACE

LEGEND, DETAIL AND AREA MAP



SINGLE LANTERN STYLE LIGHT STANDARD DETAIL
LANTERN TYPE L-10



UTILITY INFORMATION STANDARD NOTES:

- IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO UTILIZE THE "ONE CALL EXCAVATION NOTICE SYSTEM" (PH: 651-454-0002) REQUIRED BY MINNESOTA STATUTE 216D.
- FOR PLAN AND UTILITY SYMBOLS SEE LEGEND.
- THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS QUALITY LEVEL "D". THIS UTILITY QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-02, ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA."

I HEREBY CERTIFY THAT I HAVE REVIEWED THIS PLAN AND THAT I AM A LICENSED MASTER ELECTRICIAN CERTIFIED UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE 5/17/06 CERT. NO. AM04605

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

SIGNED [Signature] DATE 5/17/06 REG. NO. 40444

PREPARED BY TRAFFIC ENGINEERING DIVISION FOR THE CITY OF ST. PAUL, DEPARTMENT OF PUBLIC WORKS

LONDIN LANE/BURLINGTON ROAD

PLAN SHEET INDEX

SHEET LT 1	LEGEND, DETAILS AND AREA MAP
SHEET LT 2	WIRING DIAGRAMS
SHEET LT 3 - LT 10	STREET LIGHTING CONSTRUCTION PLANS
	STREET LIGHTING

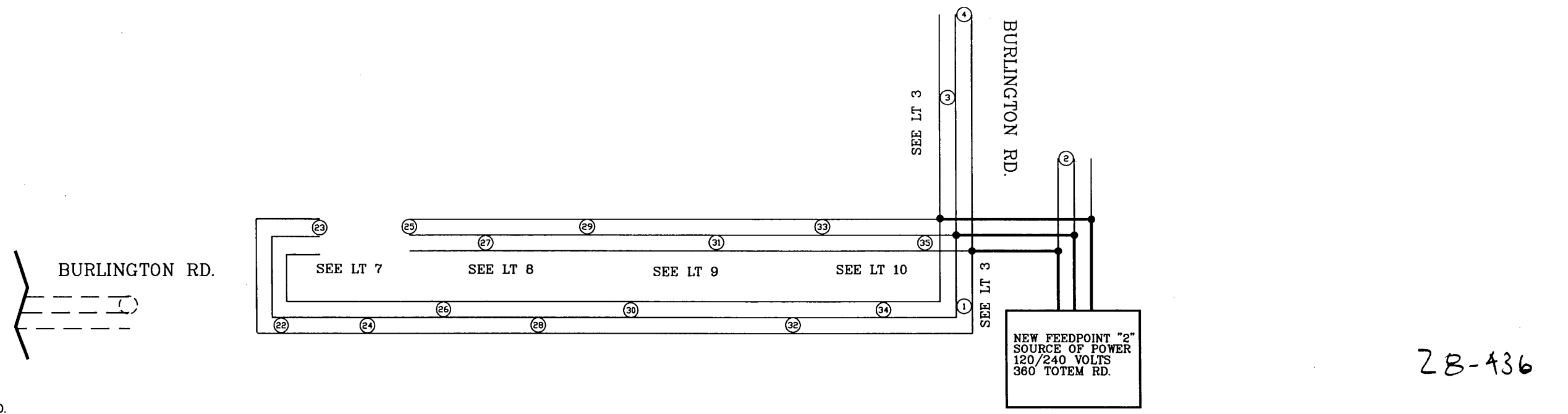
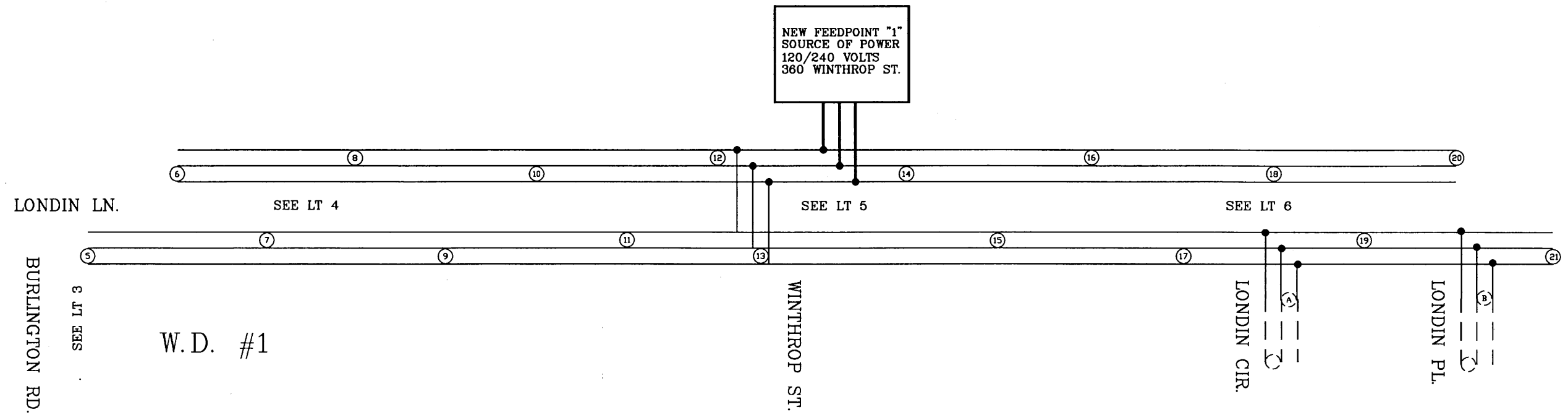
28-436



DESIGNED	ASO
DRAWN	ASO
APPROVED	BPV

PROJECT NUMBER:	06-P-1280	STATE AID PROJECT NUMBER:	164-279-001
DRAWER NUMBER:	12	CAD DRAWING NAME:	PROJECTS/CURRENT/LIGHTING2006
DRAWING NUMBER:	1713	DATE:	5/4/2006
		SHEET LT 1 OF LT 10 SHEETS	





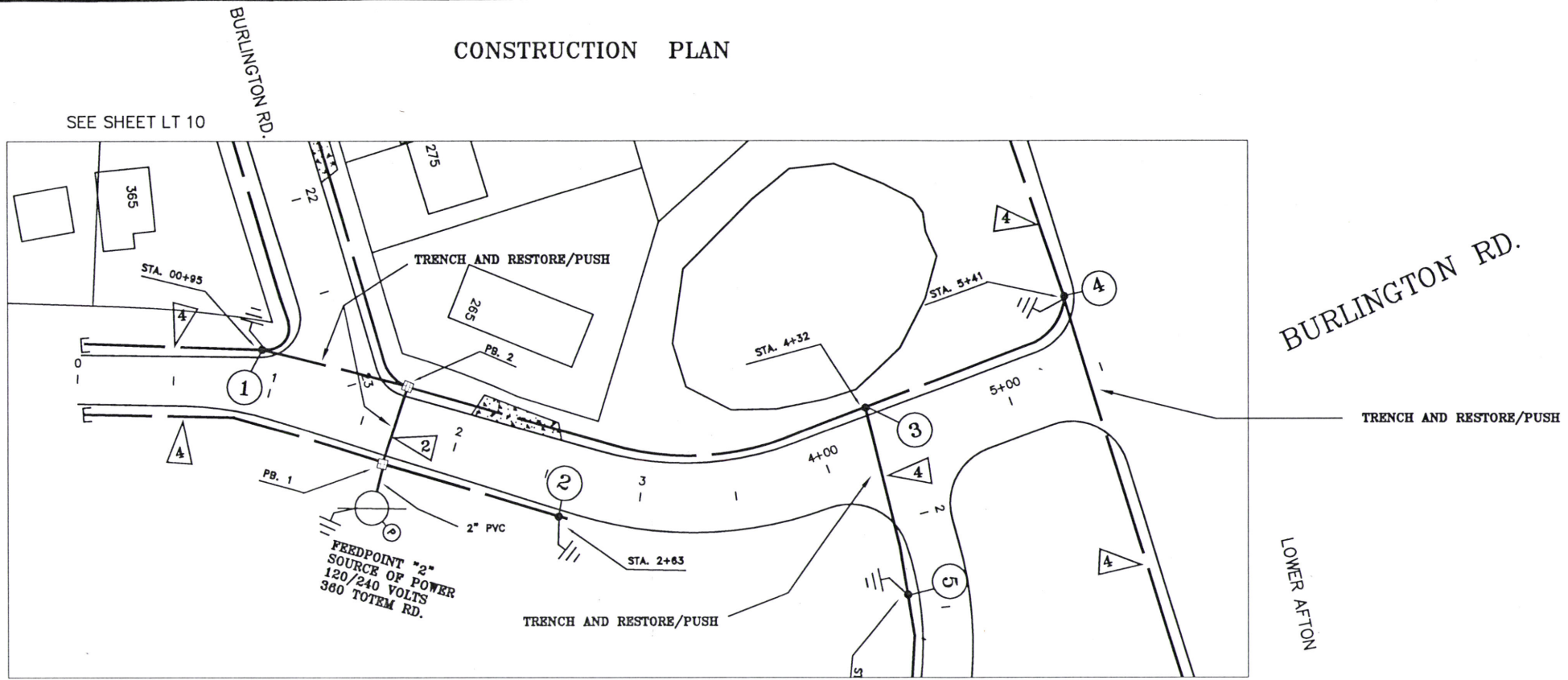
28-436

- EXISTING #6 WIRE
 - NEW #6 WIRE
 - EXISTING #4 WIRE
 - NEW #4 WIRE
 - SPLICE IN PULLBOX
 - Ⓛ PROPOSED LIGHT
 - Ⓐ EXISTING LIGHT
- W.D. WIRING DIAGRAM

	DESIGNED	ASO	I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA SIGNED <i>[Signature]</i> DATE <i>5/12/06</i> REG. NO. 40444	PREPARED BY TRAFFIC ENGINEERING DIVISION FOR THE CITY OF ST. PAUL, DEPARTMENT OF PUBLIC WORKS LONDIN LANE/BURLINGTON ROAD	PROJECT NUMBER	06-P-1280	STATE AID PROJECT NUMBER	164-279-001
	DRAWN	ASO			DRAWER NUMBER	12	CAD DRAWING NAME	PROJECTS/CURRENT/LIGHTING2006
	APPROVED	BPV			DRAWING NUMBER	1713	DATE	5/12/2006

CONSTRUCTION PLAN

- LIGHTING NOTES:
- 1) ALL WIRE ON THIS PLAN SHEET SHALL BE UNLESS OTHERWISE FLAGGED.
 - 2) ALL CONDUIT ON THIS PLAN SHEET SHALL BE 1 1/2" P.V.C. UNLESS OTHERWISE NOTED.
 - 3) ALL UNITS ON THIS PLAN SHEET SHALL BE TYPE L-10 HAVING R70 LUMINAIRES UNLESS OTHERWISE NOTED.
 - 4) ALL UNITS SHALL BE SET BACK 4 FT. FROM THE FACE OF THE CURB OR AS DIRECTED BY THE ENGINEER.



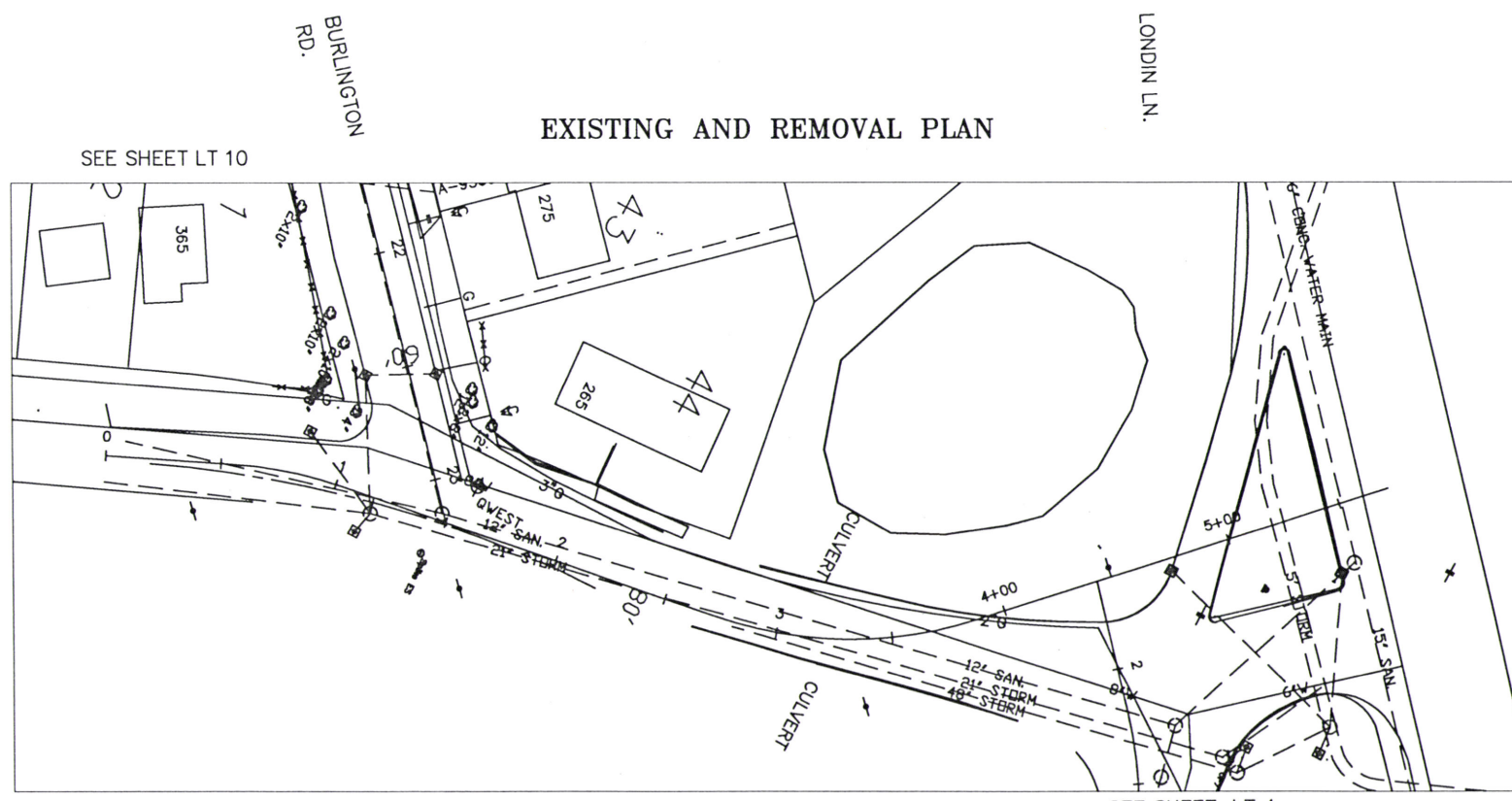
TOTEM RD.

SEE SHEET LT 10

SEE SHEET LT 4

SEE W.D. # 1 AND W.D. #2

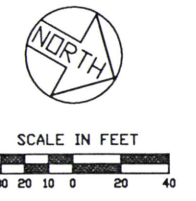
EXISTING AND REMOVAL PLAN



TOTEM RD.

SEE SHEET LT 10

SEE SHEET LT 4

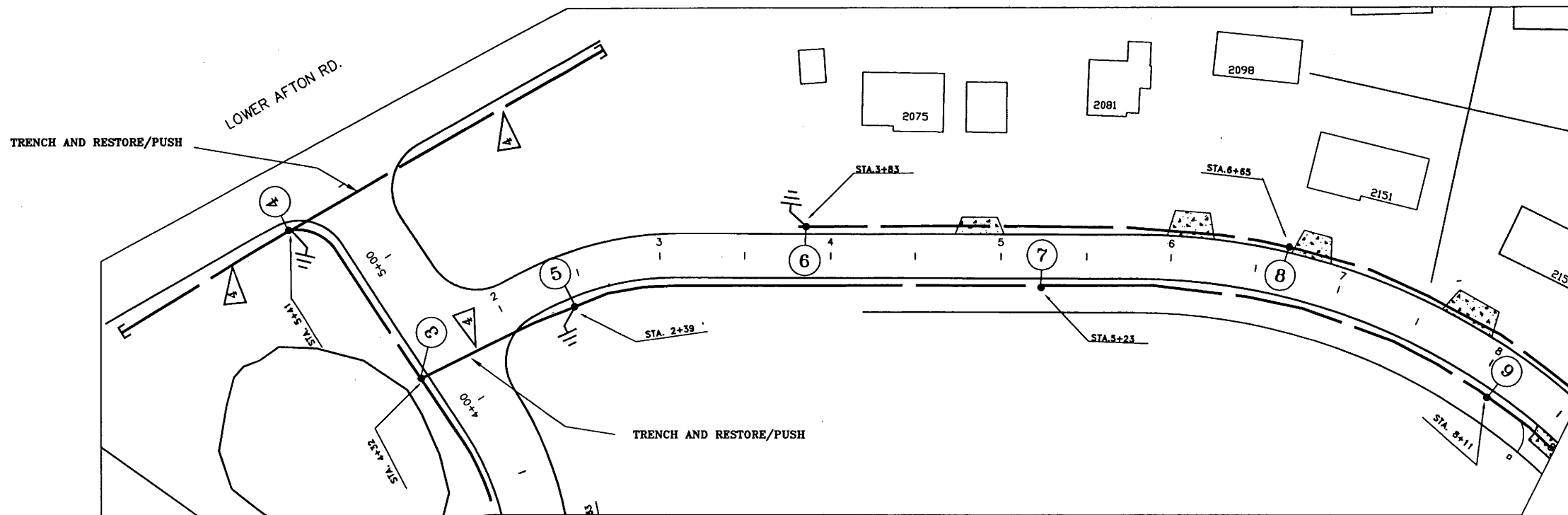


28-436

BURLINGTON RD.
STA. 00+00 TO STA. 5+00

	DESIGNED	ASO	I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA SIGNED: <i>[Signature]</i> DATE: 5/17/06 REG. NO. 40444	PREPARED BY TRAFFIC ENGINEERING DIVISION FOR THE CITY OF ST. PAUL, DEPARTMENT OF PUBLIC WORKS LONDIN LANE/BURLINGTON ROAD	PROJECT NUMBER	06-P-1280	STATE AID PROJECT NUMBER	164-279-001	
	DRAWN	ASO			DRAWER NUMBER	12	CAD DRAWING NAME	PROJECTS/CURRENT/LIGHTING2006	
	APPROVED	BPV			DRAWING NUMBER	1713	DATE	5/12/2006	SHEET LT 3 OF LT 10 SHEETS

CONSTRUCTION PLAN



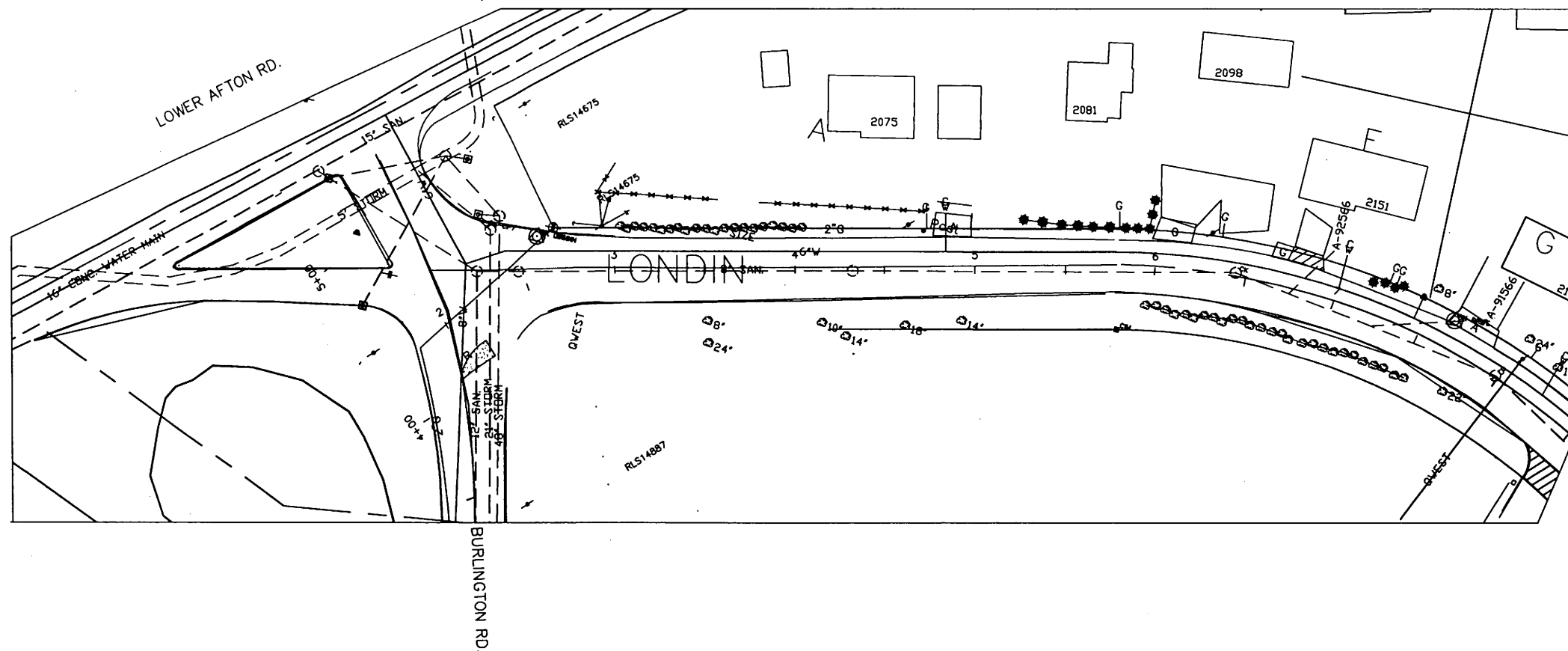
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SEE SHEET LT 5

LONDIN LN.

SEE SHEET LT 3

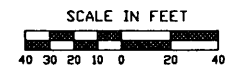
EXISTING AND REMOVAL PLAN



SEE W.D. # 1 AND W.D. # 2

SEE SHEET LT 5

LONDIN LN.



28-436

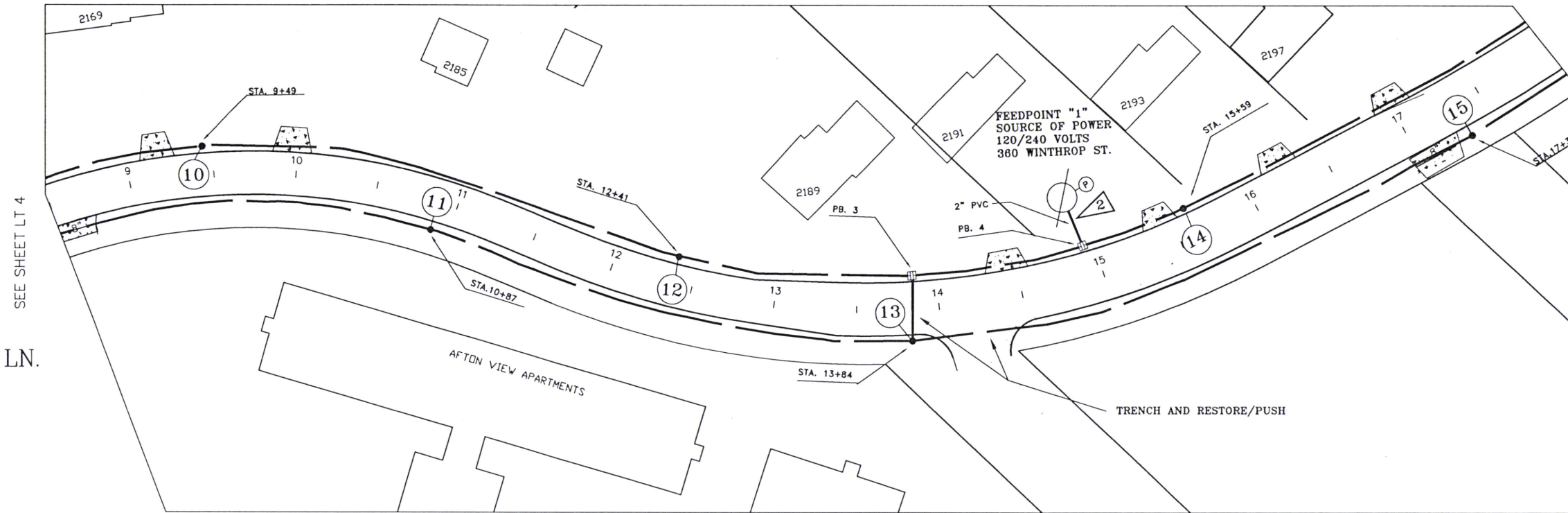
LONDIN LN.
BURLINGTON RD. TO STA. 8+50

	DESIGNED	ASO	I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA SIGNED: <i>[Signature]</i> DATE: 5/17/06 REG. NO. 40444	PREPARED BY TRAFFIC ENGINEERING DIVISION FOR THE CITY OF ST. PAUL, DEPARTMENT OF PUBLIC WORKS LONDIN LANE/BURLINGTON ROAD	PROJECT NUMBER	06-P-1280	STATE AID PROJECT NUMBER	164-279-001
	DRAWN	ASO			DRAWER NUMBER	12	CAD DRAWING NAME	PROJECTS/CURRENT/LIGHTING2006
	APPROVED	BPV			DRAWING NUMBER	1713	DATE	5/4/2006



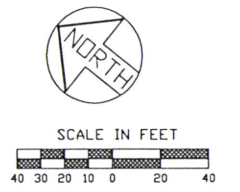
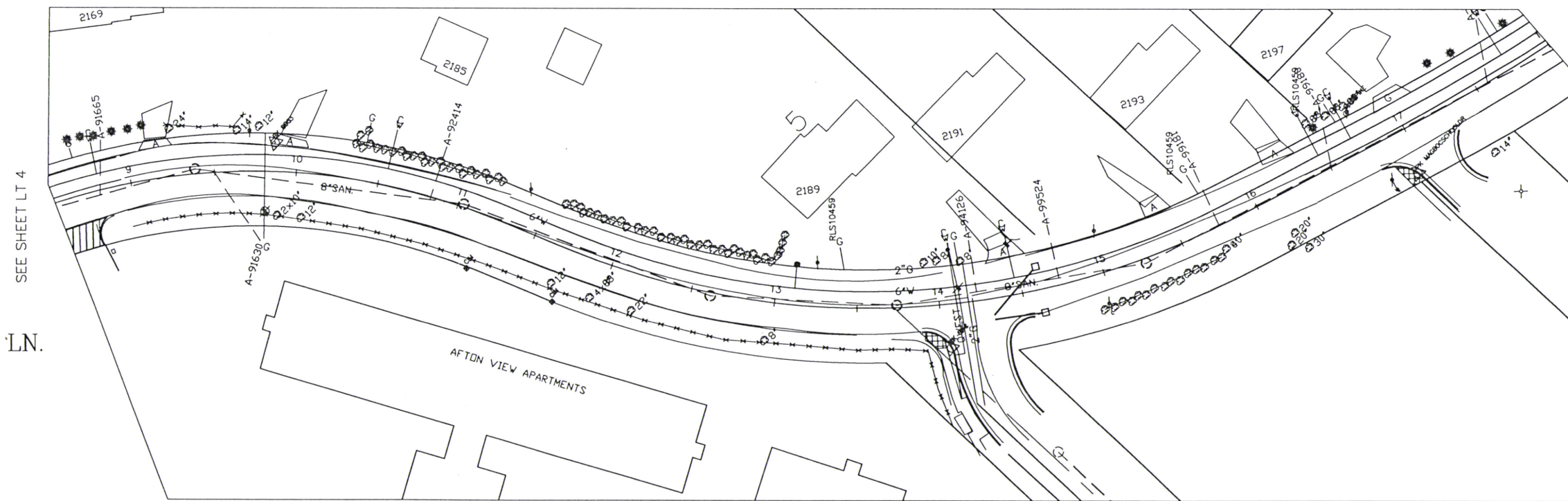
CONSTRUCTION PLAN

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 - 4) ALL UNITS SHALL BE SET BACK 4 FT. FROM THE FACE OF THE CURB OR AS DIRECTED BY THE ENGINEER.



EXISTING AND REMOVAL PLAN

SEE W.D. # 1



28-436

LONDIN LN.
STA. 8+50 TO STA. 18+00

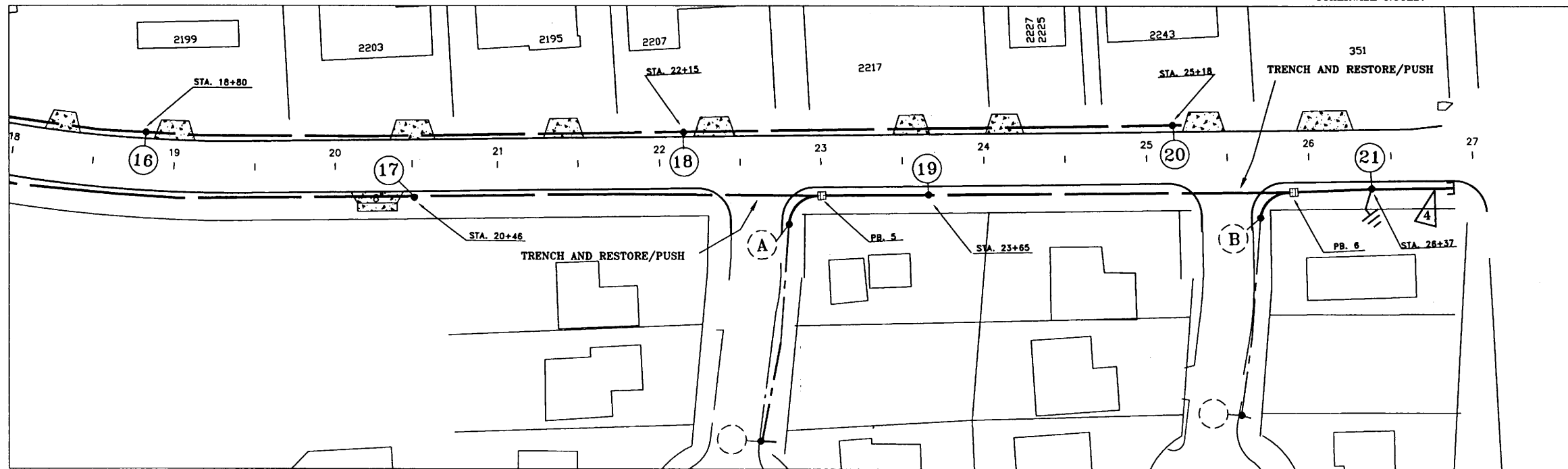
	DESIGNED	ASO	I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA SIGNED <i>[Signature]</i> DATE <i>5/17/06</i> REG. NO. <i>40444</i>	PREPARED BY TRAFFIC ENGINEERING DIVISION FOR THE CITY OF ST. PAUL, DEPARTMENT OF PUBLIC WORKS LONDIN LANE/BURLINGTON ROAD	PROJECT NUMBER	06-P-1280	STATE AID PROJECT NUMBER:	164-279-001
	DRAWN	ASO			DRAWER NUMBER:	12	CAD DRAWING NAME:	PROJECTS/CURRENT/LIGHTING2006
	APPROVED	BPV			DRAWING NUMBER:	1713	DATE:	5/12/2006



CONSTRUCTION PLAN

- LIGHTING NOTES:**
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 - 2) ALL CONDUIT ON THIS PLAN SHEET SHALL BE 1 1/2" P.V.C. UNLESS OTHERWISE NOTED.
 - 3) ALL UNITS ON THIS PLAN SHEET SHALL BE TYPE L-10 HAVING R70 LUMINAIRES UNLESS OTHERWISE NOTED.

- 4) EXISTING UNITS "A" AND "B" SHALL REMAIN IN PLACE DURING CONSTRUCTION. CONTRACTOR SHALL PREPARE EXISTING FOUNDATIONS TO ACCEPT NEW CONDUIT AND SHALL PROTECT STANDARDS AND FOUNDATIONS DURING CONSTRUCTION. THIS WORK SHALL BE CONSIDERED INCIDENTAL FOR WHICH NO ADDITIONAL COMPENSATION SHALL BE MADE.
- 5) CONTRACTOR SHALL CONTACT CITY FORCES PRIOR TO SPlicing UNITS "A" AND "B" TO NEW FEED POINT "1" - 360 WINTHROP ST.
- 6) ALL UNITS SHALL BE SET BACK 4 FT. FROM THE FACE OF THE CURB OR AS DIRECTED BY THE ENGINEER.



LONDIN LN.

McKNIGHT RD.

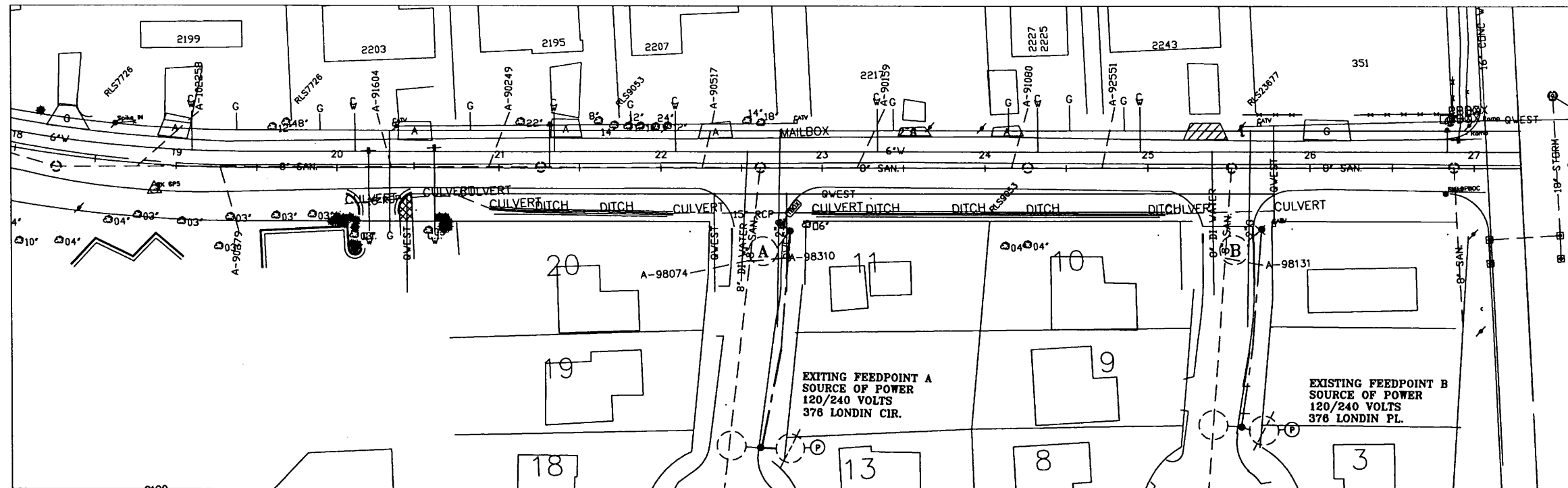
SEE SHEET LT 5

LONDIN CIR.

LONDIN PL.

EXISTING AND REMOVAL PLAN

SEE W.D. # 1



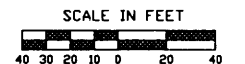
LONDIN LN.

McKNIGHT RD.

SEE SHEET LT 5

LONDIN CIR.

LONDIN PL.



28-436

LONDIN LN.
STA. 18+00 TO McKNIGHT RD.



DESIGNED ASO
DRAWN ASO
APPROVED BPV

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
SIGNED: *[Signature]* DATE: 5/17/06 REG. NO. 40444

PREPARED BY TRAFFIC ENGINEERING DIVISION FOR THE CITY OF ST. PAUL, DEPARTMENT OF PUBLIC WORKS
LONDIN LANE/BURLINGTON ROAD

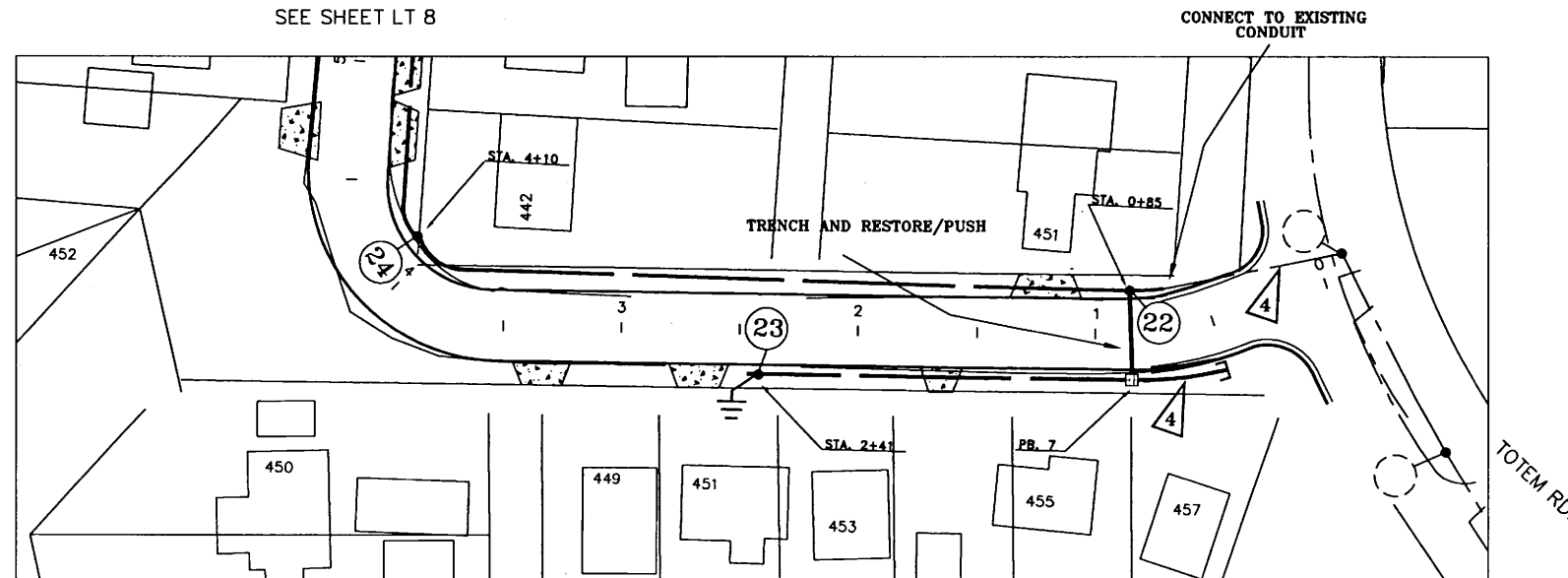
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DRAWER NUMBER: 12
DRAWING NUMBER: 1713

STATE AID PROJECT NUMBER: 164-279-001
CAD DRAWING NAME: PROJECTS/CURRENT/LIGHTING2006
DATE: 5/12/2006
SHEET LT 6 OF LT 10 SHEETS



- LIGHTING NOTES:**
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 - 3) ALL UNITS ON THIS PLAN SHEET SHALL BE TYPE L-10 HAVING R70 LUMINAIRES UNLESS OTHERWISE NOTED.
 - 4) CONTRACTOR SHALL REMOVE AND SALVAGE LIGHT STANDARD AND LUMINAIRE "C". LUMINAIRES SHALL BE REMOVED PRIOR TO DELIVERY IN CITY YARD.
 - 5) CONTRACTOR SHALL REMOVE AND DISPOSE OF LIGHT BASE FOUNDATION "C".
 - 6) ALL UNITS SHALL BE SET BACK 4 FT. FROM THE FACE OF THE CURB OR AS DIRECTED BY THE ENGINEER.

CONSTRUCTION PLAN

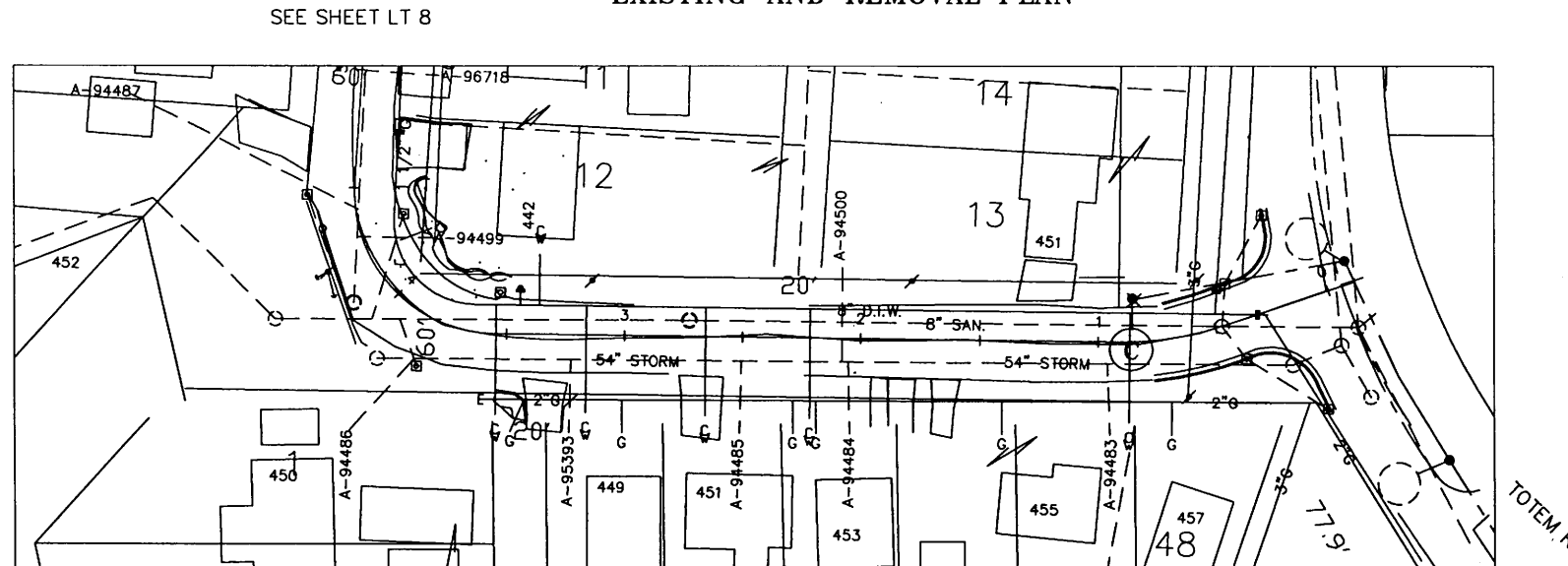


BURLINGTON RD.

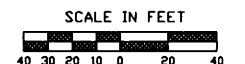
TOTEM RD.

SEE W.D. # 2

EXISTING AND REMOVAL PLAN



BURLINGTON RD.



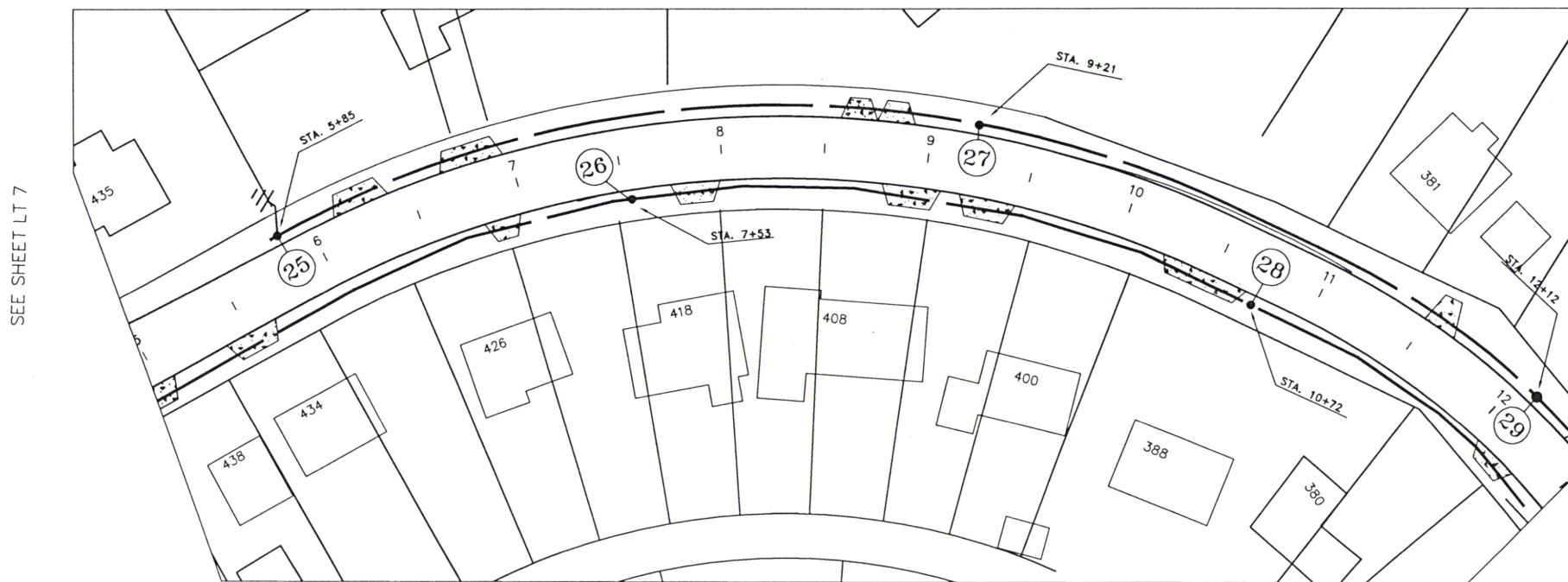
28-436

BURLINGTON RD.
TOTEM RD. TO STA. 5+00

	DESIGNED	ASO	I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA SIGNED <i>[Signature]</i> DATE 5/17/06 REG. NO. 40444	PREPARED BY TRAFFIC ENGINEERING DIVISION FOR THE CITY OF ST. PAUL, DEPARTMENT OF PUBLIC WORKS LONDIN LANE/BURLINGTON ROAD	PROJECT NUMBER	06-P-1280	STATE AID PROJECT NUMBER	164-294-001
	DRAWN	ASO			DRAWER NUMBER	12	CAD DRAWING NAME	PROJECTS/CURRENT/LIGHTING2006
	APPROVED	BPV			DRAWING NUMBER	1713	DATE	5/12/2006

CONSTRUCTION PLAN

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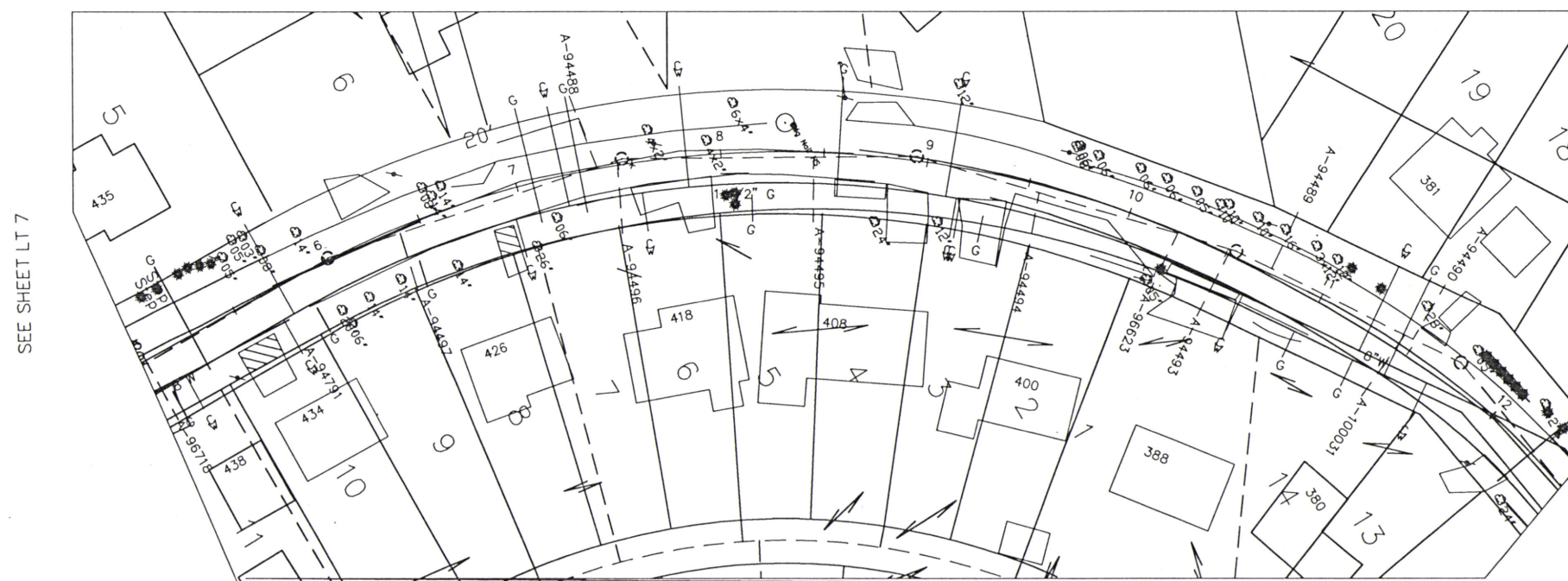
SEE SHEET LT 7

SEE SHEET LT 9

BURLINGTON RD.

SEE W.D. # 2

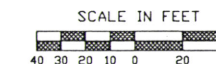
EXISTING AND REMOVAL PLAN



SEE SHEET LT 7

SEE SHEET LT 9

BURLINGTON RD.



28-436

BURLINGTON RD.
STA. 5+00 TO STA. 12+50



DESIGNED	ASO
DRAWN	ASO
APPROVED	BPV

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

SIGNED *[Signature]* DATE *5/10/06* REG. NO. 40444

PREPARED BY TRAFFIC ENGINEERING DIVISION FOR THE CITY OF ST. PAUL, DEPARTMENT OF PUBLIC WORKS

LONDIN LANE/BURLINGTON ROAD

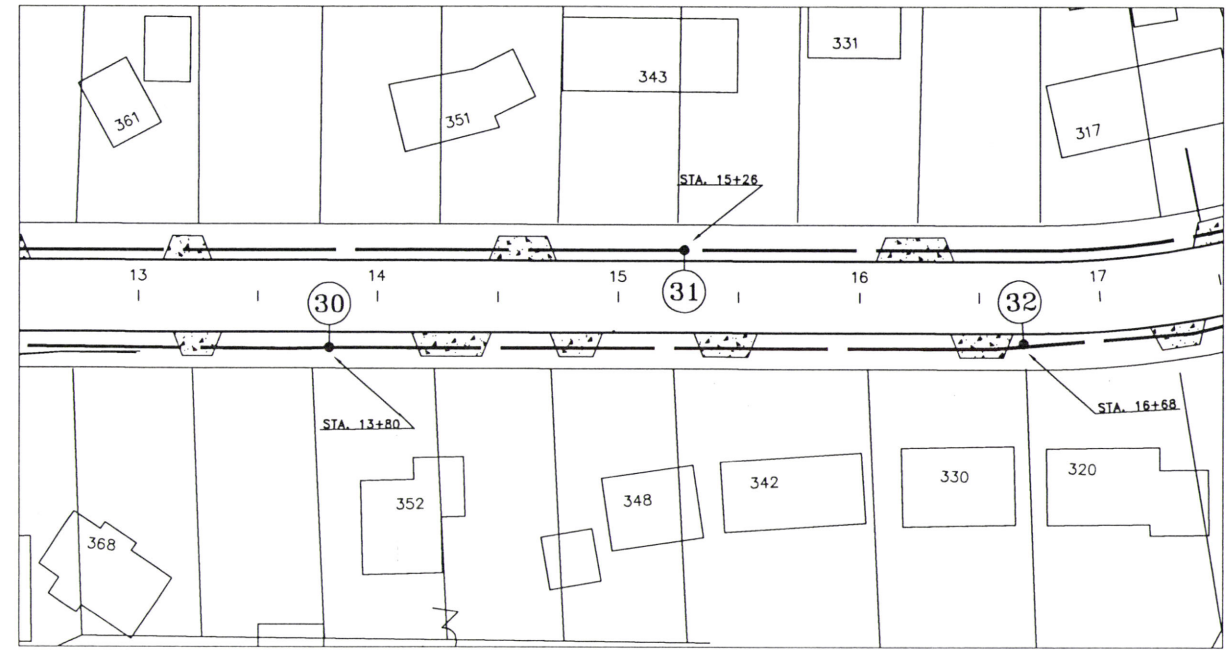
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DRAWER NUMBER: 12
DRAWING NUMBER: 1713

STATE AID PROJECT NUMBER: 164-279-001
CAD DRAWING NAME: PROJECTS/CURRENT/LIGHTING2006
DATE: 5/12/2006
SHEET LT 8 OF LT 10 SHEETS



- LIGHTING NOTES:
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CONSTRUCTION PLAN



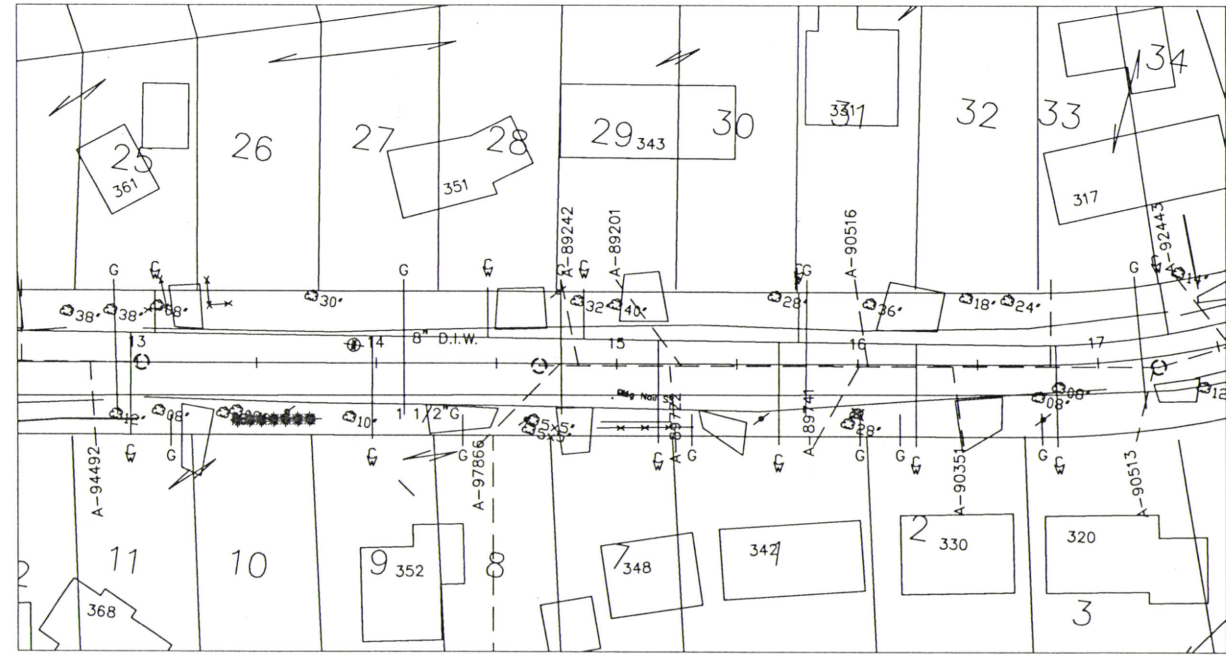
SEE SHEET LT 8

SEE SHEET LT 10

BURLINGTON RD.

SEE W.D. # 2

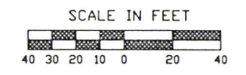
EXISTING AND REMOVAL PLAN



SEE SHEET LT 8

SEE SHEET LT 10

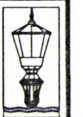
BURLINGTON RD.



28-436

BURLINGTON RD.
STA. 12+50 TO STA. 17+50

	DESIGNED	ASO	I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA SIGNED <i>[Signature]</i> DATE <i>5/17/06</i> REG. NO. <i>40444</i>	PREPARED BY TRAFFIC ENGINEERING DIVISION FOR THE CITY OF ST. PAUL, DEPARTMENT OF PUBLIC WORKS LONDIN LANE/BURLINGTON ROAD	PROJECT NUMBER	06-P-1280	STATE AID PROJECT NUMBER	164-279-001
	DRAWN	ASO			DRAWER NUMBER	12	CAD DRAWING NAME	PROJECTS/CURRENT/LIGHTING2006
	APPROVED	BPV			DRAWING NUMBER	1713	DATE	5/12/2006



CONSTRUCTION PLAN

SEE SHEET LT 3



- LIGHTING NOTES:
- 1) ALL WIRE ON THIS PLAN SHEET SHALL BE UNLESS OTHERWISE FLAGGED.
 - 2) ALL CONDUIT ON THIS PLAN SHEET SHALL BE 1 1/2" P.V.C. UNLESS OTHERWISE NOTED.
 - 3) ALL UNITS ON THIS PLAN SHEET SHALL BE TYPE L-10 HAVING R70 LUMINAIRES UNLESS OTHERWISE NOTED.
 - 4) ALL UNITS SHALL BE SET BACK 4 FT. FROM THE FACE OF THE CURB OR AS DIRECTED BY THE ENGINEER.

BURLINGTON RD.

SEE SHEET LT 9

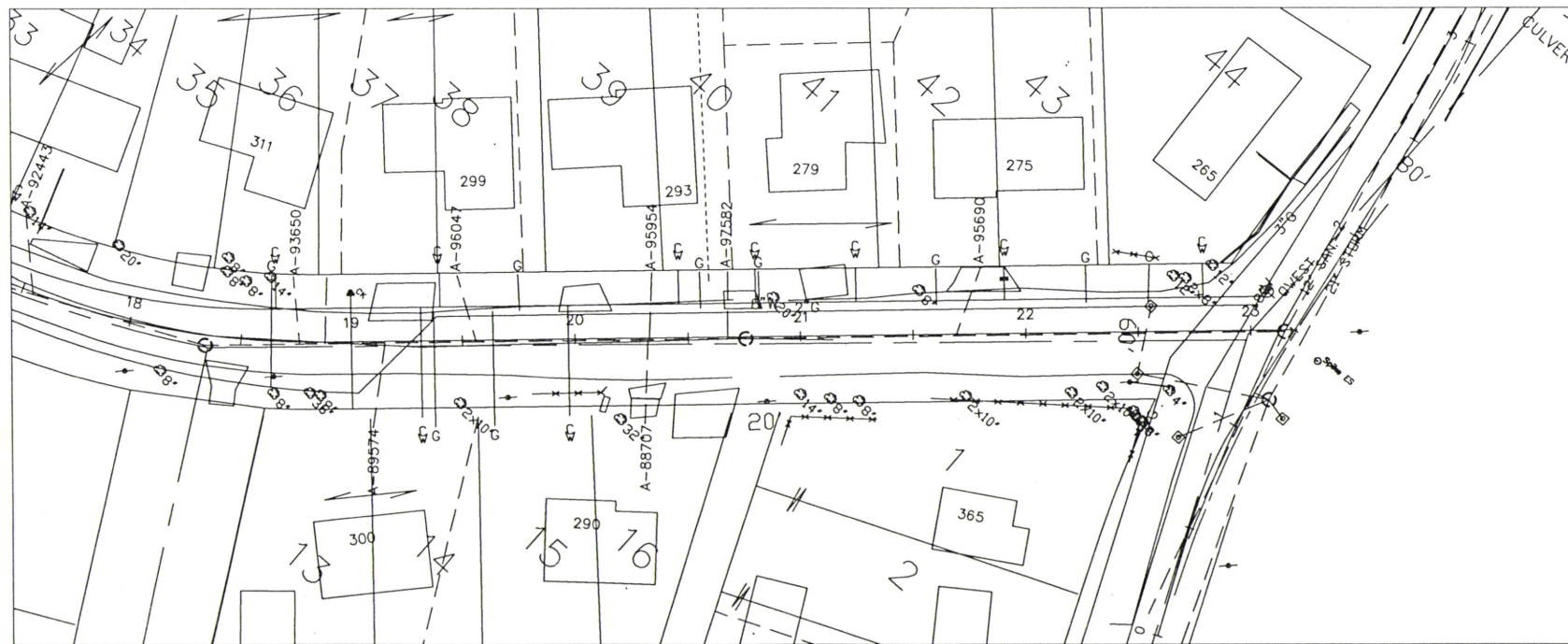
TOTEM RD.

TRENCH AND RESTORE/PUSH

SEE W.D. # 2

EXISTING AND REMOVAL PLAN

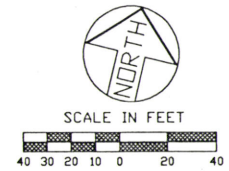
SEE SHEET LT 3



BURLINGTON RD.

SEE SHEET LT 9

TOTEM RD.



28-436

BURLINGTON RD.
STA. 17+50 TO TOTEM RD.

	DESIGNED	ASO	I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA SIGNED <i>[Signature]</i> DATE 5/17/06 REG. NO. 40444	PREPARED BY TRAFFIC ENGINEERING DIVISION FOR THE CITY OF ST. PAUL, DEPARTMENT OF PUBLIC WORKS LONDIN LANE/BURLINGTON ROAD	PROJECT NUMBER	06-P-1280	STATE AID PROJECT NUMBER	164-279-001
	DRAWN	ASO			DRAWER NUMBER	12	CAD DRAWING NAME	PROJECTS/CURRENT/LIGHTING2006
	APPROVED	BPV			DRAWING NUMBER	1713	DATE	5/12/2006

