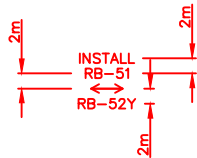


NOTE:

-ALL CURB & SIDEWALK LAYERS SHOULD HAVE A LINEWEIGHT OF 0.13mm.
-ALL PAVEMENT MARKING LAYERS SHOULD HAVE A LINEWEIGHT OF 0.25mm.
-ANY DRAWING WITH PAVEMENT MARKINGS SHOULD HAVE THE "TYPICAL LANE MARKING SPACING" BLOCK ON IT
-ANY REVISION SHOULD BE SURROUNDED BY A REVISION CLOUD WITH AN ARC LENGTH OF 8.0 AND A GLOBAL WIDTH OF 1
-EACH VIEWPORT SHOULD HAVE ITS OWN NORTH ARROW AND HAVE MATCHLINES WHERE NEEDED

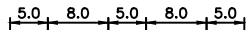


ALL SIGN TEXT SHOULD USE LEROY 100 AND BE MIDDLE CENTRE JUSTIFIED. ALL TEXT AND ARROWS HAVE TO BE 2m APART CENTERED ON INSERTION POINT

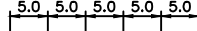
SIGN LEGEND

RA-2	YIELD SIGN
RB-1E	MAXIMUM SPEED (60KM) SIGN
RB-11L	LEFT TURN PROHIBITED SIGN
RB-11LT	NO LEFT TURN (TAB) SIGN
RB-23	DO NOT ENTER SIGN
RB-25	KEEP RIGHT SIGN
RB-51	NO PARKING SIGN
RB-59	BUS STOP SIGN
RB-85	CENTRE LANE FOR LEFT TURNS SIGN
RC-4L/R	STOP LINE (LEFT/RIGHT) SIGN
RC-27	DO NOT STOP ON RAILWAY TRACKS SIGN
WA-17	DOUBLE ARROW SIGN
WA-18	RAILWAY CROSSING AHEAD SIGN
WA-35R	ADDED LANE (RIGHT) SIGN
WA-36L	OBJECT MARKER (LEFT) SIGN
WB-11	HIGH COLLISION SIGN
ID-33	PHOTO ENFORCED SIGN
IS-33	RED LIGHT (TAB) SIGN

TYPICAL LANE MARKING SPACING



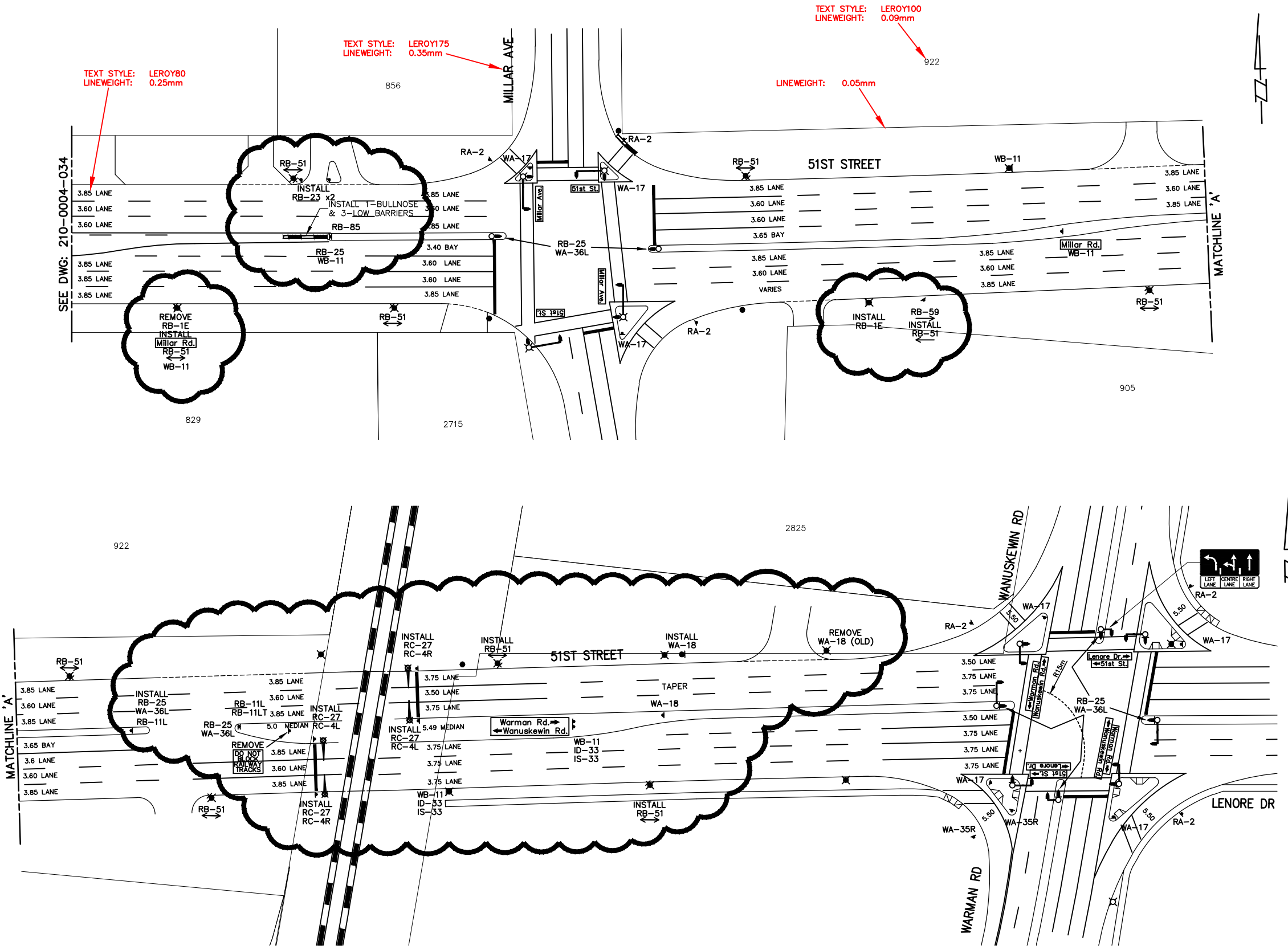
REGULAR LANE LINE (100 mm WIDE)



TURNING LANE LINE (100 mm WIDE)



REGULAR LINE (100 mm WIDE)



11			
10			
9			
8			
7			
6			
5			
4			
3			
2			
1	RENUM. FROM 210-0004-009 SHT. 3, REV. LIMITS, ASBUILT, REV SIGNING AND PAYMT MRKGS	2010-JUL-28	BAJ
	PLAN DESCRIPTION/REVISION	DATE	BY

CONSTRUCTION & DESIGN	TRANSPORTATION	PUBLIC WORKS
ENGINEER	ENGINEER	ENGINEER
DATE	DATE	DATE
DRAWN BY: BAJ	DATE: 2010-JUL-28	CHECKED BY: DATE



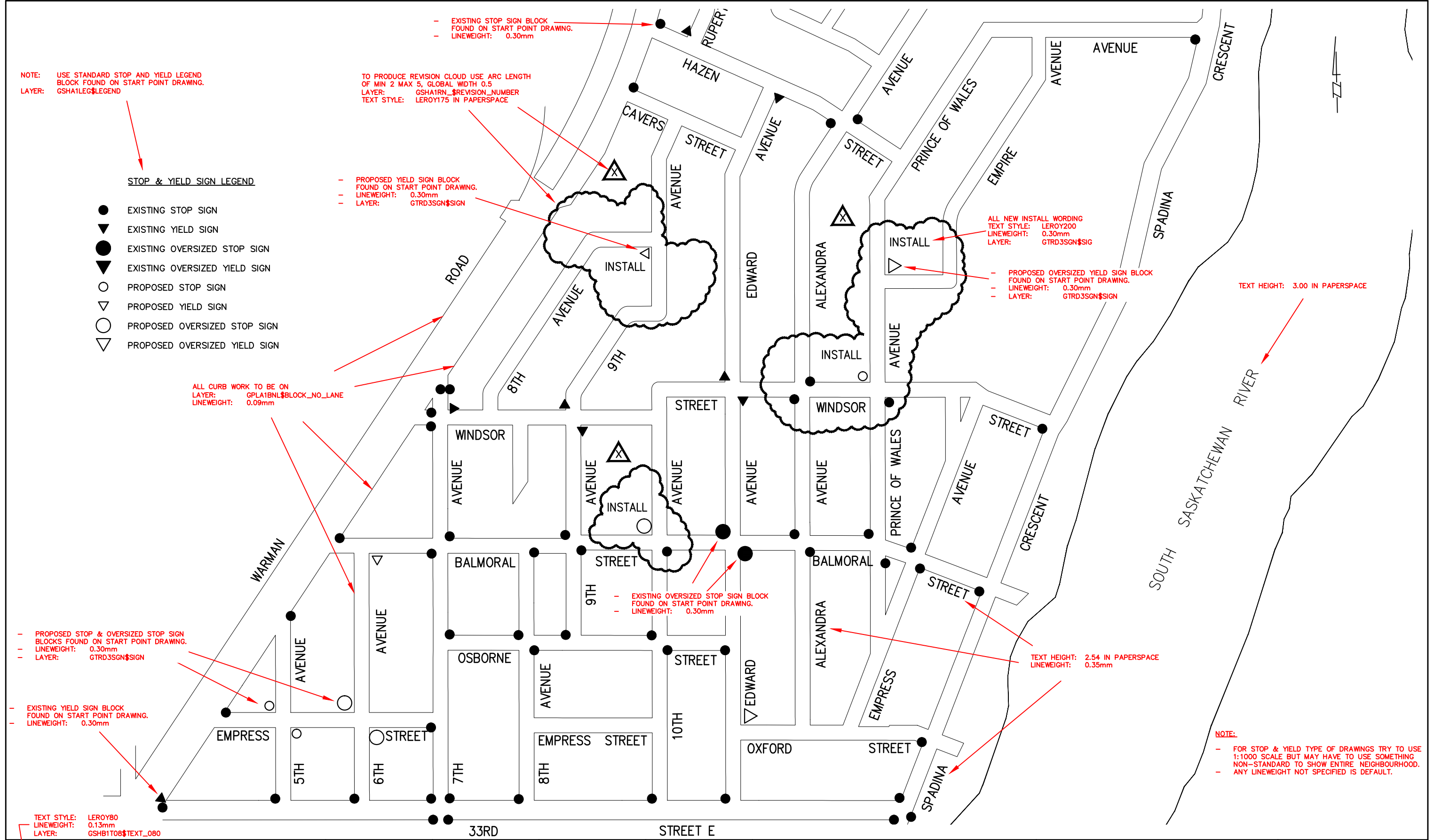
City of Saskatoon
Infrastructure Services Department

SIGNING AND PAVEMENT MARKINGS

51ST STREET

115m WEST OF MILLAR AVENUE TO
WARMAN ROAD / WANUSKEWIN ROAD

GENERAL MANAGER	
SCALES:	
HOR. 1:1000	DATE
VERT.	
SHEET NO. 1 OF 1	PLAN NO. 210-0004-035r001



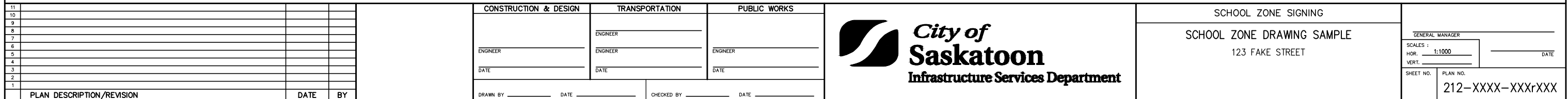
<div>11</div> <div>10</div> <div>9</div> <div>8</div> <div>7</div> <div>6</div> <div>5</div> <div>4</div> <div>3</div> <div>2</div> <div>1</div>			<div>REVISION</div> <div>20YY-MON-DD</div> <div>XXX</div>			<div>CONSTRUCTION & DESIGN</div> <div>ENGINEER</div> <div>DATE</div>			<div>TRANSPORTATION</div> <div>ENGINEER</div> <div>DATE</div>			<div>PUBLIC WORKS</div> <div>ENGINEER</div> <div>DATE</div>			<div>City of Saskatoon</div> <div>Infrastructure Services Department</div>			<div>STOP AND YIELD SIGNING</div> <div>NEIGHBOURHOOD</div> <div>STOP & YIELD</div>			<div>GENERAL MANAGER</div> <div>SCALES :</div> <div>HOR. 1:XXXX</div> <div>VERT. 1:XXXX</div> <div>DATE</div>			<div>SHEET NO. 1 OF 1</div> <div>PLAN NO. XXX-XXXX-XXXr00X</div>		
<div>PLAN DESCRIPTION/REVISION</div> <div>DATE</div> <div>BY</div>												<div>DRAWN BY XXX</div> <div>DATE 20YY-MON-DD</div> <div>CHECKED BY</div> <div>DATE</div>														

A map of the Forest Grove School District showing the locations of Forest Grove School and St. Volodymyr School. The map includes a grid of streets: Dunlop St, Evans St, Fitzgerald St, Grant St, Hedley St, Spark Ave, Gray Ave, Imperial St, James St, Kellough Rd, Baker Cr, Addie Cr, and Berni Drive. A thick black line represents a major road or boundary. Red arrows point from the text '115TH STREET' and 'LES KERR PARK' to their respective locations on the map. The schools are labeled in boxes: 'FOREST GROVE SCHOOL' and 'ST. VOLODYMYR SCHOOL'.

— TEXT STYLE: LEROY100
TEXT WIDTH: 0.85
LINE WEIGHT: 0.25mm

SIGN LEGEND

RA-1	STOP SIGN
RA-2	YIELD SIGN
RA-4 L/R	PEDESTRIAN CROSSWALK LEFT/RIGHT SIGN
RB-1F	MAXIMUM SPEED 50km/h SIGN
RB-51	NO PARKING SIGN
RB-55	NO STOPPING SIGN
RB-58L	SCHOOL BUS LOADING ZONE 0800-1700 M-F SIGN
RB-58G	DISABLED PERSONS LOADING ZONE SIGN
RB-66 L/R	PEDESTRIANS PROHIBITED/ALLOWED/ARROW SIGN
WC-1	SCHOOL AHEAD SIGN
WC-1T	MAXIMUM SPEED 30km/h 0800-1700 M-F SEPT-JUNE SIGN



LEGEND OF SYMBOLS	
P1	POLE IDENTIFICATION
①	SIGNAL HEAD IDENTIFICATION
△	DUCT FORMATION IDENTIFICATION
○	COMBINATION TRAFFIC SIGNAL & LIGHT STANDARD
○	TRAFFIC SIGNAL CORRIDOR POLE
○	TRAFFIC SIGNAL MEDIAN POLE
○	LIGHT STANDARD BY OTHERS
■	TRAFFIC SIGNAL HEAD
→	PEDESTRIAN SIGNAL HEAD
→	COUNTDOWN PEDESTRIAN SIGNAL HEAD
■	TRAFFIC SIGNAL CABINET
□	JUNCTION BOXES (LARGE, MEDIUM, SMALL)
■	JU-3
PB	PEDESTRIAN PUSH BUTTON
B/W	BREAKAWAY BASE
□	AUDIBLE CHIRP - E/W
□	AUDIBLE CUCKOO - N/S
○	POLE LOCATOR
■	WIRELESS OVERHEAD DETECTOR AND DETECTOR ZONE
■	WIRELESS VEHICLE DETECTOR
○	WIRELESS DETECTOR RECEIVER
○	GPS RADIO ANTENNA
○	YAGI WIRELESS COMM ANTENNA
***NOTE: FOR ALL POLE LOCATIONS, INSTALL 2 FLEXIBLE PIPES FROM THE SPLICE BOX TO THE POLE BASE.	

- NOTE:
- ALL CURB & SIDEWALK LAYERS SHOULD HAVE A LINEWEIGHT OF 0.13mm.
 - ALL PAVEMENT MARKING LAYERS SHOULD HAVE A LINEWEIGHT OF 0.09mm. IF SHOWING A STOPBAR IN BLACK INTERFERES WITH THE VISIBILITY OF A TRAFFIC SIGNAL LOOP IT CAN BE SHOWN IN GREY.
 - ALL CHARTS CAN BE COPIED FROM THE TRAFFIC SIGNAL TEMPLATE DRAWING.
 - ALL PROPOSED TRAFFIC SIGNAL OBJECTS & NOTES ARE SHOWN IN RED AND ARE PUT ON THE APPROPRIATE "PROPOSED" LAYER
 - ALL EXISTING TRAFFIC SIGNAL OBJECTS & NOTES ARE SHOWN IN BLACK AND ARE PUT ON THE APPROPRIATE "EXISTING" LAYER
 - ANY OBJECTS BEING RELOCATED ARE SHOWN IN GREY

SIGNAL DESCRIPTION			SIGNALS			BACK BOARD NO.
			PRIMARY	SECONDARY	AUXILIARY	
LED-RD 300	LED-AB 300	LED-GR 300	1,4,6,8	2,7,9,11	5,10	1,4,6,8
LED-RD 300	LED-AB 300	LED-AR 300				
LED-RD 300	LED-AB 300	LED-GR BI-MODAL 300			3	
LED-RD 300	LED-RD 300	LED-AB 300				

11			
10			
9			
8			
7	BOYCHUK WIDENING, APPROVED FOR CONSTRUCTION	2010-AUG-16	BAJ
6	ASBUILT OF INFORMATION PROVIDED	2006-JUL	LBKM
5	ASBUILT	2005-JUN	CJP
4	INSTALLED POLE (P8) IN THE NE CORNER	2004-NOV	RPH
3	INSTALLED PB FOR E-W TRAFFIC	2004-OCT	RPH
2	REVISED SW ISLAND	2004-SEP	RPH
1	REVISED P2 LOCATION TO MEDIAN	2004-SEP	RPH
PLAN DESCRIPTION/REVISION		DATE	BY

APPROVED FOR CONSTRUCTION

DATE _____

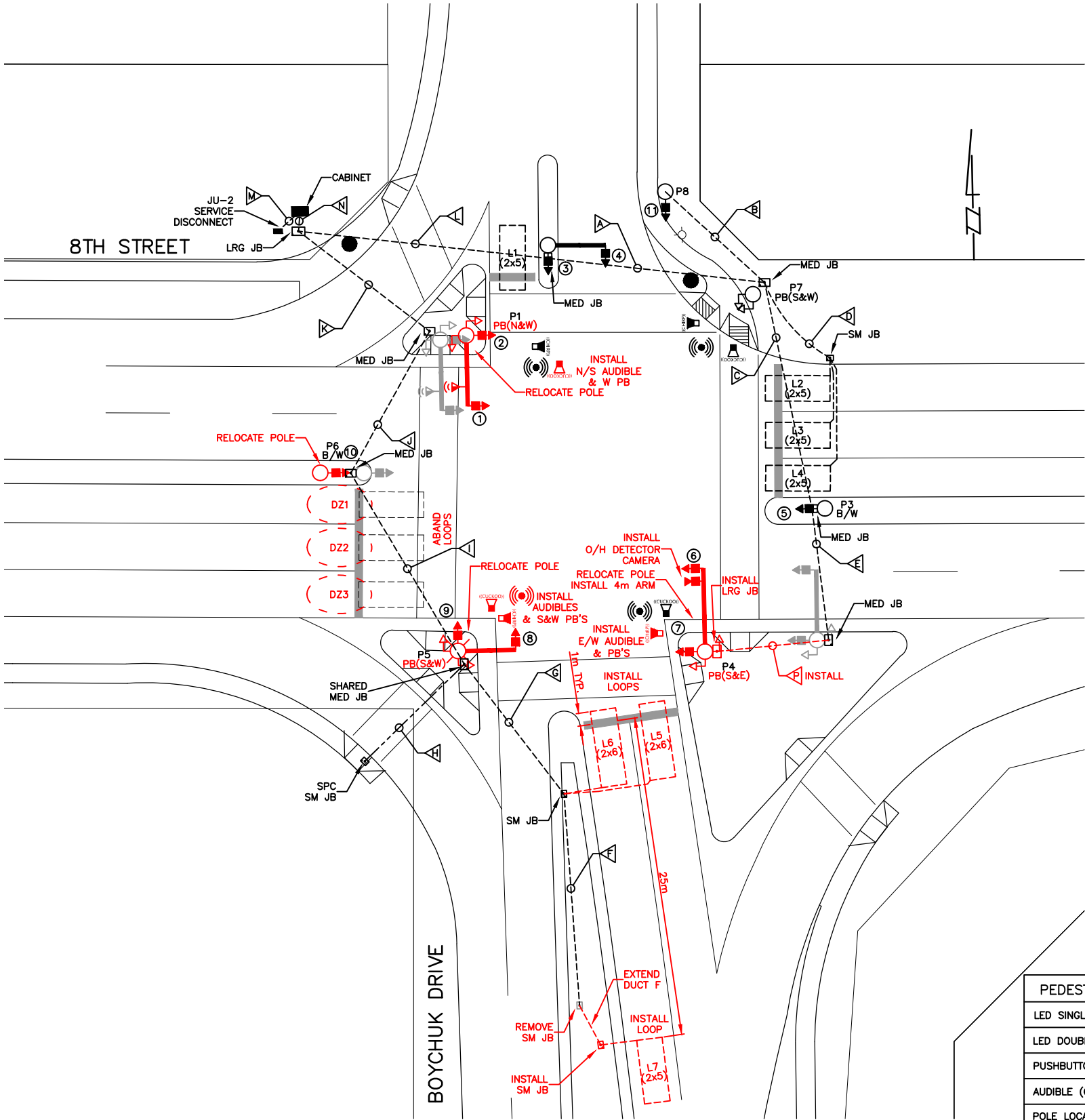
CONSTRUCTION & DESIGN	TRANSPORTATION	PUBLIC WORKS
ENGINEER _____	ENGINEER _____	ENGINEER _____
DATE _____	DATE _____	DATE _____
DRAWN BY _____ RPH	DATE _____ 2004-MAY-20	CHECKED BY _____ DATE _____



8TH STREET & BOYCHUK DRIVE
INTERSECTION #6099
TRAFFIC SIGNALS

GENERAL MANAGER _____	
SCALES : HOR. 1:400	DATE _____
VERT. _____	
SHEET NO. 1 OF 3	PLAN NO. 220-0020-012r007

DUCT FORMATION	DUCT LENGTH(m)	# OF DUCTS	DUCT CONTENTS		
			1	2	3
A	17.0	3-2"	1-7C 2-TM	2-7C,1-TM 1-15C	SPARE
B	10.5	1-2"	1-7C		
C	18.0	3-2"	1-15C	SPARE	SPARE
D	8.0	1-2"	3-TM		
E	10.3	2-2"	1-15C	SPARE	
F	16.5	1-2"	1-TM		
G	12.8	2-2"	2-TM	1-TM	
H		1-2"	SPC		
I	17.3	3-2"	1-TM	1-15C 2-TM	SPARE
J	12.7	3-2"	1-7C,4-TM 1-15C	2-TM	SPARE
K	12.9	3-2"	1-7C,4-TM 2-15C	2-TM	LMR400
L	19.6	2-2"	1-7C 2-TM	2-7C,1-TM 2-15C	SPARE
M	2.3	1-2"	3-#6		
N	1.5	1-4" 1-2"	4-7C,9-TM 3-15C	LMR400	
P	8.7	2-2"	1-16C	SPARE	



PEDESTRIAN HEADS	POLE NO.
LED SINGLE PED	
LED DOUBLE PED	P1,P4,P5,P7
PUSHBUTTONS & SIGN	P1,P4,P5,P7
AUDIBLE (CHIRP / CUCKOO)	P1,P3,P5,P7
POLE LOCATOR	P1,P3,P5,P7
POLARA	

POLE DESCRIPTION	EXTENSION ARM	POLE NO.	BREAKAWAY BASE
MEDIAN POLE	---	P3,P6 P7,P8	P3,P6
STREET LIGHT	---		
DAVIT POLE	---		
TRANSIT POLE	---		
WOOD POLE			
CORRIDOR POLE	2.0 m	P2	P1,P5
	3.0 m	P1	
	4.0 m	P4	
	5.0 m		
9 m COMBINATION POLE	2.0 m	P5	
	3.0 m		
	4.0 m		
	5.0 m		

LEGEND OF SYMBOLS	
P1	POLE IDENTIFICATION
①	SIGNAL HEAD IDENTIFICATION
△	DUCT FORMATION IDENTIFICATION
⊗	COMBINATION TRAFFIC SIGNAL & LIGHT STANDARD
○	TRAFFIC SIGNAL CORRIDOR POLE
○	TRAFFIC SIGNAL MEDIAN POLE
⊗	LIGHT STANDARD BY OTHERS
■	TRAFFIC SIGNAL HEAD
→	PEDESTRIAN SIGNAL HEAD
→	COUNTDOWN PEDESTRIAN SIGNAL HEAD
■	TRAFFIC SIGNAL CABINET
□□□	JUNCTION BOXES (LARGE, MEDIUM, SMALL)
■	JU-3
PB	PEDESTRIAN PUSH BUTTON
B/W	BREAKAWAY BASE
□	AUDIBLE CHIRP - E/W
□	AUDIBLE CUCKOO - N/S
⊙	POLE LOCATOR
⊙	WIRELESS OVERHEAD DETECTOR AND DETECTOR ZONE
⊙	WIRELESS VEHICLE DETECTOR
⊙	WIRELESS DETECTOR RECEIVER
⊙	GPS RADIO ANTENNA
⊙	YAGI WIRELESS COMM ANTENNA

NOTE:

- ALL NOTES ON THE "TRAFFIC SIGNAL" LAYOUT APPLY TO THE "PHASING" LAYOUT.
- A PHASING DIAGRAM AND A DETECTOR IDENTIFICATION CHART ARE SHOWN ON THIS LAYOUT INSTEAD OF CHARTS SHOWING DUCT CONTENTS, POLE INVENTORY, SIGNAL HEADS, AND SIGNAL DESCRIPTIONS.
- THE ONLY OBJECTS SHOWN IN THE LAYOUT SHOULD BE EXISTING AND PROPOSED TRAFFIC SIGNAL POLES AND SIGNAL HEADS, DETECTION LOOPS, AND PHASING PHASING INFORMATION. EVERYTHING ELSE SHOULD BE FROZEN.

DETECTOR IDENTIFICATION CHART							
DET CHL	OPERATION PHASE	COUNT	DET. NO.	DETECTION		TM	
				PULSE PRESENCE	LOCKING NON-LOCKING	SEPARATE	COMBINED
1							
2							
3	3		L7	PR	NLK		
4	4		L1	PR	NLK		
5							
6	6		L2,L3,L4	PR	NLK		X
7							
8	8		L5,L6	PR	NLK	X	

11				
10				
9				
8				
7	BOYCHUK WIDENING, APPROVED FOR CONSTRUCTION	2010-AUG-16	BAJ	
6	ASBUILT OF INFORMATION PROVIDED	2006-JUL	LBKM	
5	ASBUILT	2005-JUN	CJP	
4	INSTALLED POLE (P8) IN THE NE CORNER	2004-NOV	RPH	
3	INSTALLED PB FOR E-W TRAFFIC	2004-OCT	RPH	
2	REVISED SW ISLAND	2004-SEP	RPH	
1	REVISED P2 LOCATION TO MEDIAN	2004-SEP	RPH	
	PLAN DESCRIPTION/REVISION	DATE	BY	
















APPROVED FOR CONSTRUCTION

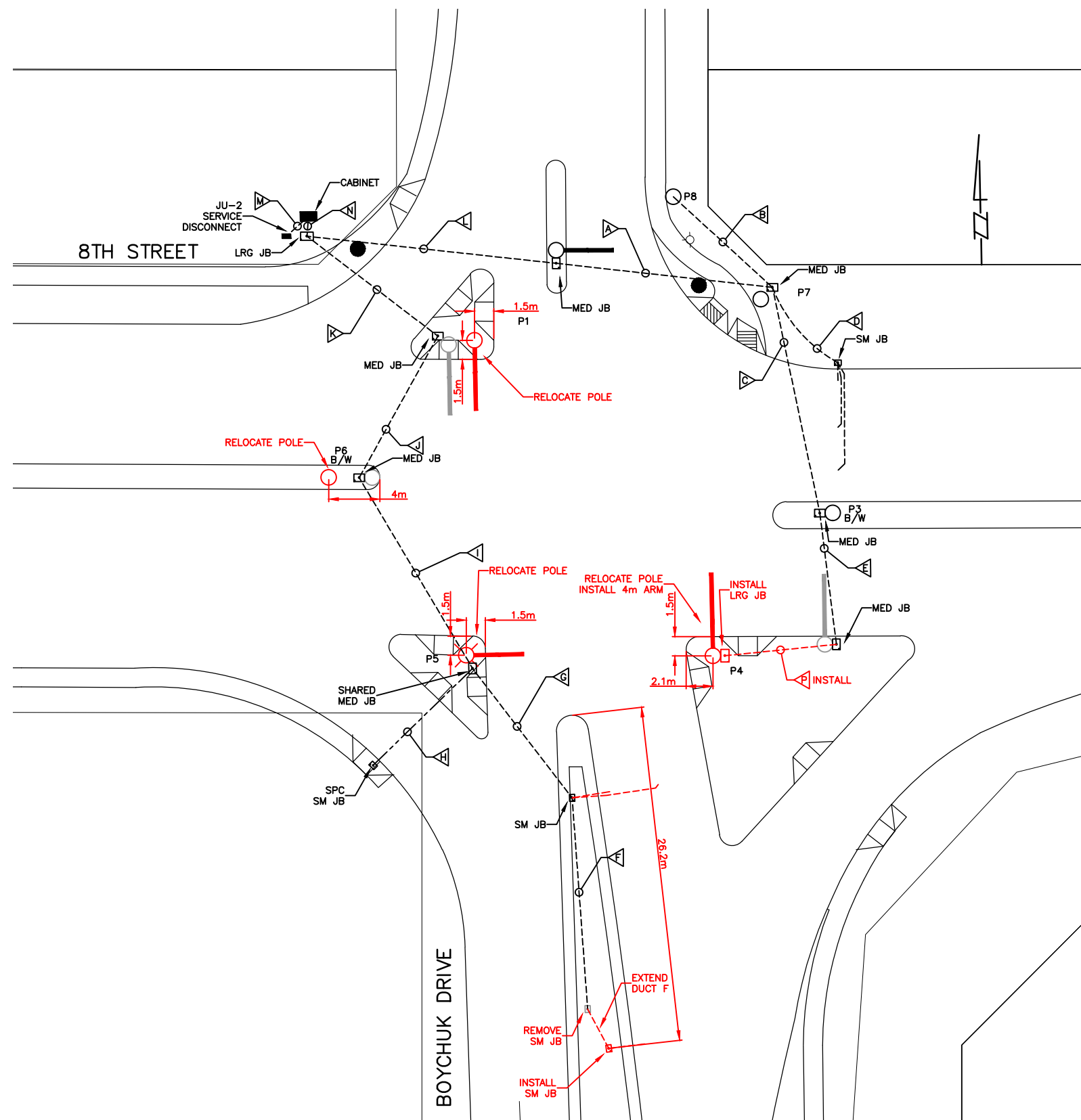
DATE

CONSTRUCTION & DESIGN	TRANSPORTATION	PUBLIC WORKS
ENGINEER	ENGINEER	ENGINEER
DATE	DATE	DATE
DRAWN BY RPH	DATE 2004-MAY-20	CHECKED BY





8TH STREET & BOYCHUK DRIVE		INTERSECTION #6099	
TRAFFIC SIGNAL PHASING		GENERAL MANAGER	
SHEET NO. 2 OF 3		PLAN NO. 220-0020-012r007	

LEGEND OF SYMBOLS	
P1	POLE IDENTIFICATION
①	SIGNAL HEAD IDENTIFICATION
△	DUCT FORMATION IDENTIFICATION
	COMBINATION TRAFFIC SIGNAL & LIGHT STANDARD
	TRAFFIC SIGNAL CORRIDOR POLE
○	TRAFFIC SIGNAL MEDIAN POLE
	LIGHT STANDARD BY OTHERS
	TRAFFIC SIGNAL HEAD
→	PEDESTRIAN SIGNAL HEAD
→	COUNTDOWN PEDESTRIAN SIGNAL HEAD
	TRAFFIC SIGNAL CABINET
	JUNCTION BOXES (LARGE, MEDIUM, SMALL)
	JU-3
PB	PEDESTRIAN PUSH BUTTON
B/W	BREAKAWAY BASE
	AUDIBLE CHIRP - E/W
	AUDIBLE CUCKOO - N/S
	POLE LOCATOR
	WIRELESS OVERHEAD DETECTOR AND DETECTOR ZONE
	WIRELESS VEHICLE DETECTOR
	WIRELESS DETECTOR RECEIVER
	GPS RADIO ANTENNA
	YAGI WIRELESS COMM ANTENNA
<p>***NOTE: FOR ALL POLE LOCATIONS, INSTALL 2 FLEXIBLE PIPES FROM THE SPLICE BOX TO THE POLE BASE.</p>	



CONTRACTOR TO INSTALL THE FOLLOWING:

1. 4 - TRAFFIC POLE BUTTS
2. TRENCH OR BORE 13m FOR TRAFFIC SIGNALS
3. 21m OF 2" FLEXIBLE DUCT FOR TRAFFIC SIGNALS
4. 1 - SMALL JUNCTION BOXES
5. 1 - LARGE JUNCTION BOXES
6. 2 - GROUND RODS

DUCT FORMATION	DUCT LENGTH(m)	# OF DUCTS
	+3.5	1-2"
	8.7	2-2"

POLE DESCRIPTION	EXTENSION ARM	POLE NO.	BREAKAWAY BASE
MEDIAN POLE	————	P8	P8
STREET LIGHT	————	P4 P2,P6	
DAVIT POLE	————		
TRANSIT POLE	————		
WOOD POLE			
CORRIDOR POLE	2.0 m		
	3.0 m		
	4.0 m	P1,P5	P1,P5
	5.0 m		
9 m COMBINATION POLE	2.0 m		
	3.0 m		
	4.0 m	P7	
	5.0 m	P3	

11			
10			
9			
8			
7	BOYCHUK WIDENING, APPROVED FOR CONSTRUCTION	2010-AUG-16	BAJ
6	ASBULT OF INFORMATION PROVIDED	2006-JUL	LBKM
5	ASBULT	2005-JUN	CJP
4	INSTALLED POLE (P8) IN THE NE CORNER	2004-NOV	RPH
3	INSTALLED PB FOR E-W TRAFFIC	2004-OCT	RPH
2	REVISED SW ISLAND	2004-SEP	RPH
1	REVISED P2 LOCATION TO MEDIAN	2004-SEP	RPH
	PLAN DESCRIPTION/REVISION	DATE	BY

**APPROVED FOR
CONSTRUCTION**

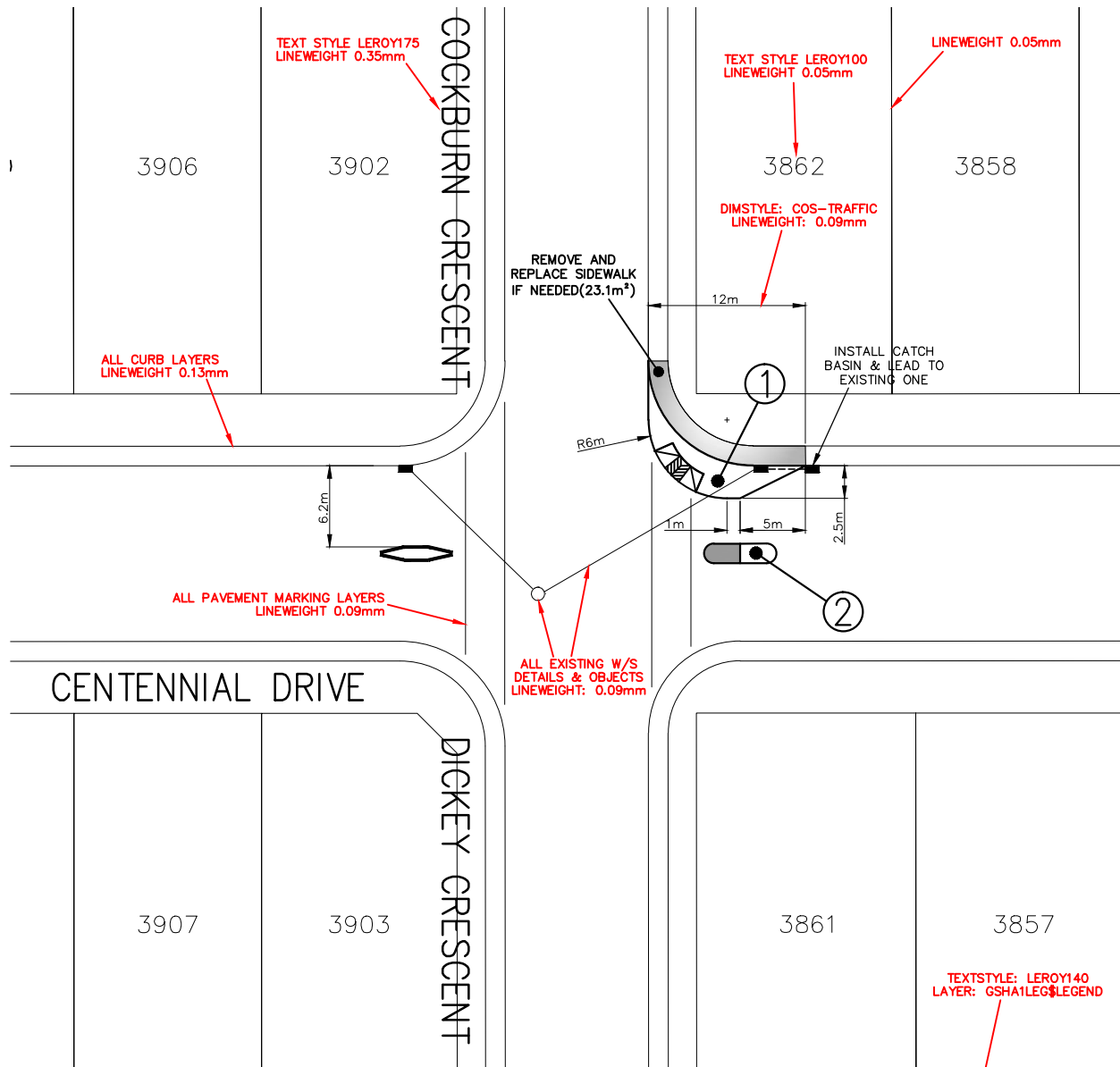
DATE _____

CONSTRUCTION & DESIGN		TRANSPORTATION		PUBLIC WORKS	
_____ ENGINEER		_____ ENGINEER		_____ ENGINEER	
_____ DATE		_____ DATE		_____ DATE	
DRAWN BY _____ RPH _____ DATE _____ 2004-MAY-20		CHECKED BY _____ DATE _____			

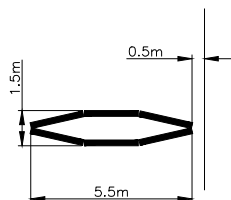


8TH STREET & BOYCHUK DRIVE
INTERSECTION #6099
CONSTRUCTION LAYOUT

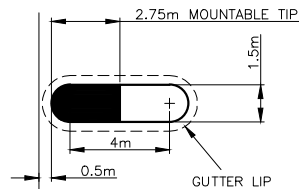
GENERAL MANAGER _____	
SCALES : HOR. _____ 1:400 VERT. _____	_____ DATE
SHEET NO. 3 OF 3	PLAN NO. 220-0020-012r007



TEMPORARY CENTER MEDIAN DETAIL



PERMANENT CENTER MEDIAN DETAIL



DRAW DETAIL OF MEDIAN INSTALLATIONS SHOWING REQUIRED DIMENSIONS.

CONCRETE AREA ①

TOTAL AREA = 32.75m²
RAMP AREA = 5.95m²

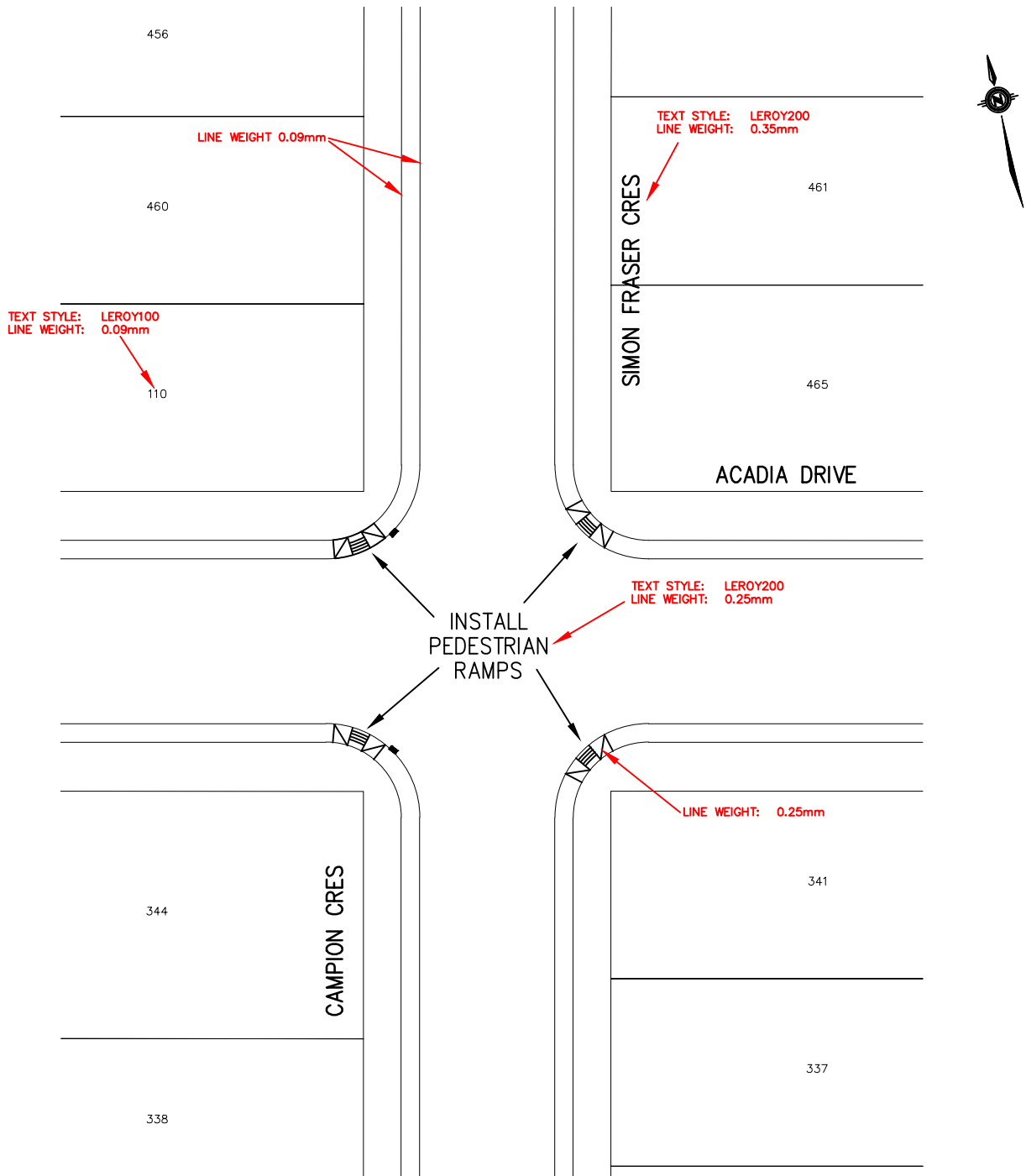
CONCRETE AREA ②


TOTAL AREA = 7.76m²

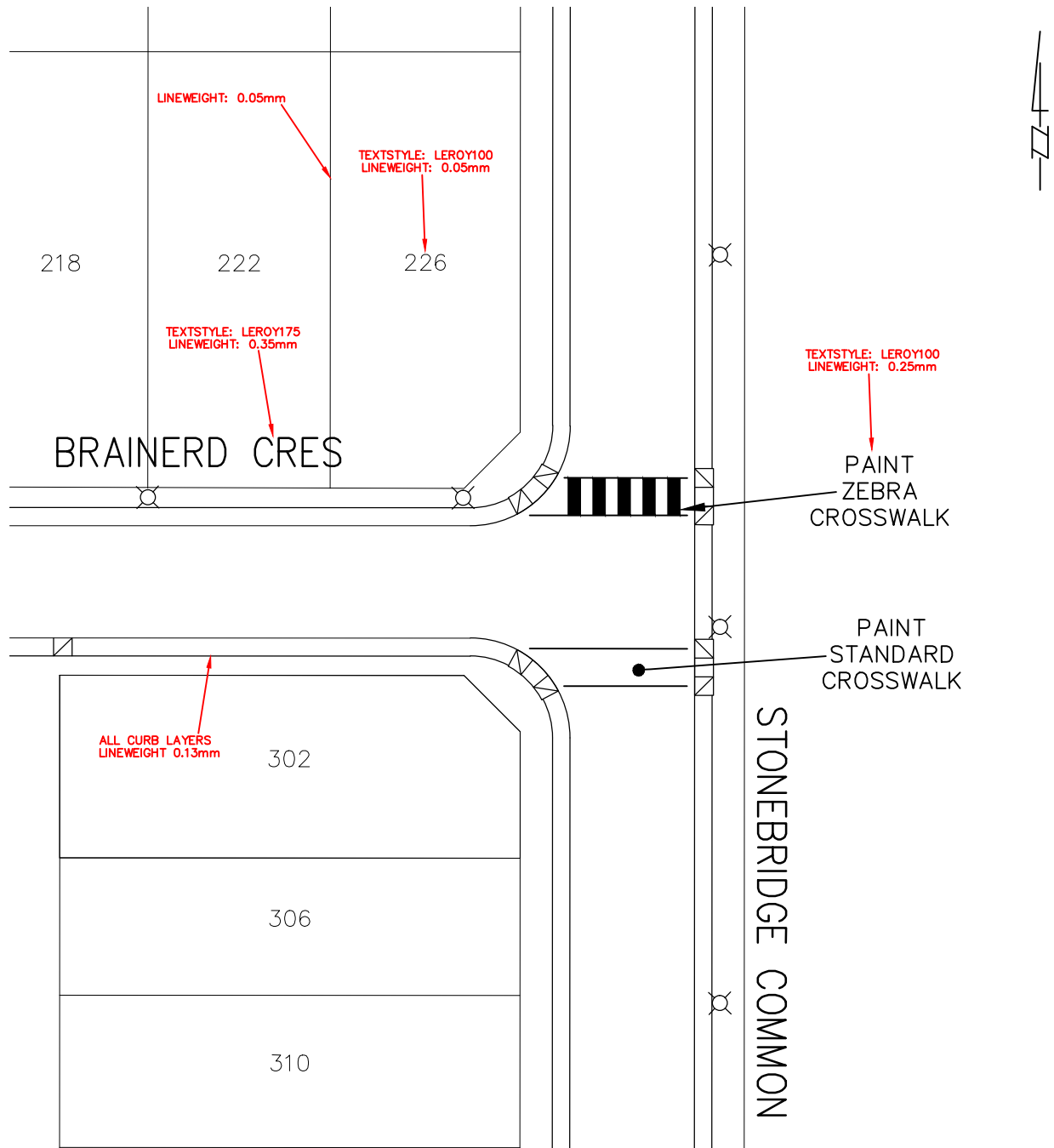
NOTES:

- USE 1:500 DRAWING SCALE
- ANY LINEWEIGHT NOT SPECIFIED IS DEFAULT
- ANY NOTES SHOULD USE TEXT STYLE LEROY100 AND BE PUT ON APPROPRIATE LAYER

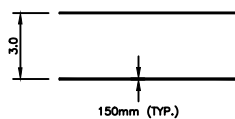
PLAN DESCRIPTION/REVISIONS		APPROVED	
4		 City of Saskatoon Infrastructure Services Department	GENERAL MANAGER
3			
2			ENGINEER
1			ENGINEER
DRAWN BY <u>JMR</u> DATE <u>2013-DEC-15</u> SCALE : HOR. <u>1:500</u> VERT. _____		PLAN NO. <u>XXX-XXXX-XXXr001</u>	
TRAFFIC CALMING			



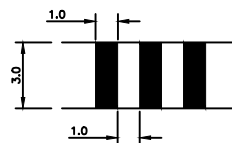
PLAN DESCRIPTION/REVISIONS		 City of Saskatoon Infrastructure Services Department	APPROVED	
4			GENERAL MANAGER	
3		ENGINEER		
2		ENGINEER		
1		PLAN NO. 230-XXXX-XXXrXXX		
DRAWN BY _____ DATE _____		PEDESTRIAN RAMP DRAWING SAMPLE		
SCALE : HOR. 1:500 VERT. _____				



TYPICAL CROSSWALK MARKINGS



TYPICAL ZEBRA CROSSWALK MARKINGS



SHOW APPLICABLE
CROSSWALK DETAIL BLOCK

NOTES:

- USE 1:500 DRAWING SCALE
- ANY LINEWEIGHT NOT SPECIFIED IS DEFAULT

PLAN DESCRIPTION/REVISIONS		APPROVED	
4			
3		GENERAL MANAGER	
2		ENGINEER	
1		ENGINEER	
DRAWN BY <u>JMR</u>		PLAN NO. <u>203-0704-004r001</u>	
DATE <u>2013-OCT-29</u>			
SCALE : HOR. <u>1:500</u> VERT. _____			



PEDESTRIAN CROSSWALK
BRAINERD CRESCENT & STONEBRIDGE COMMON