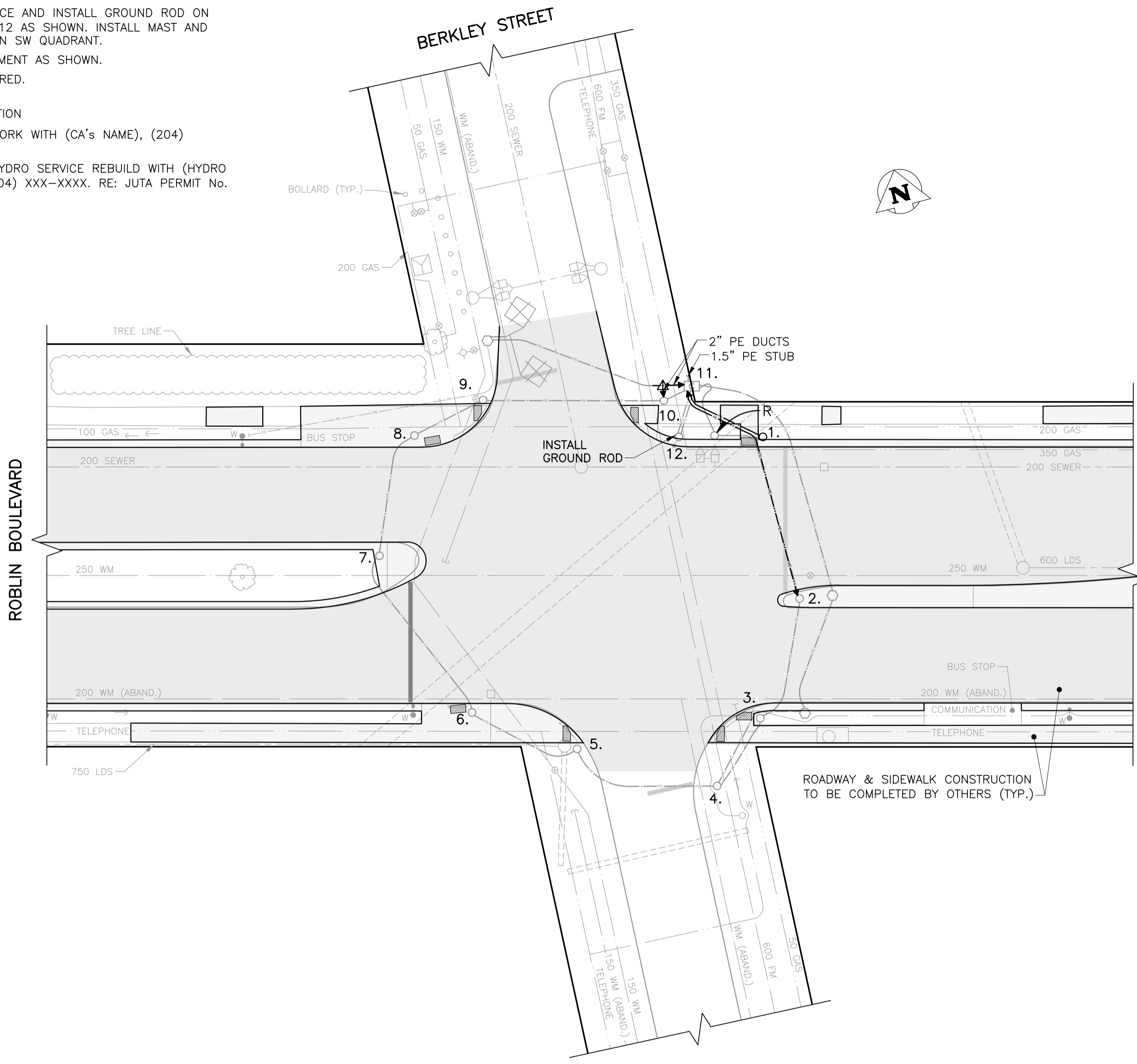


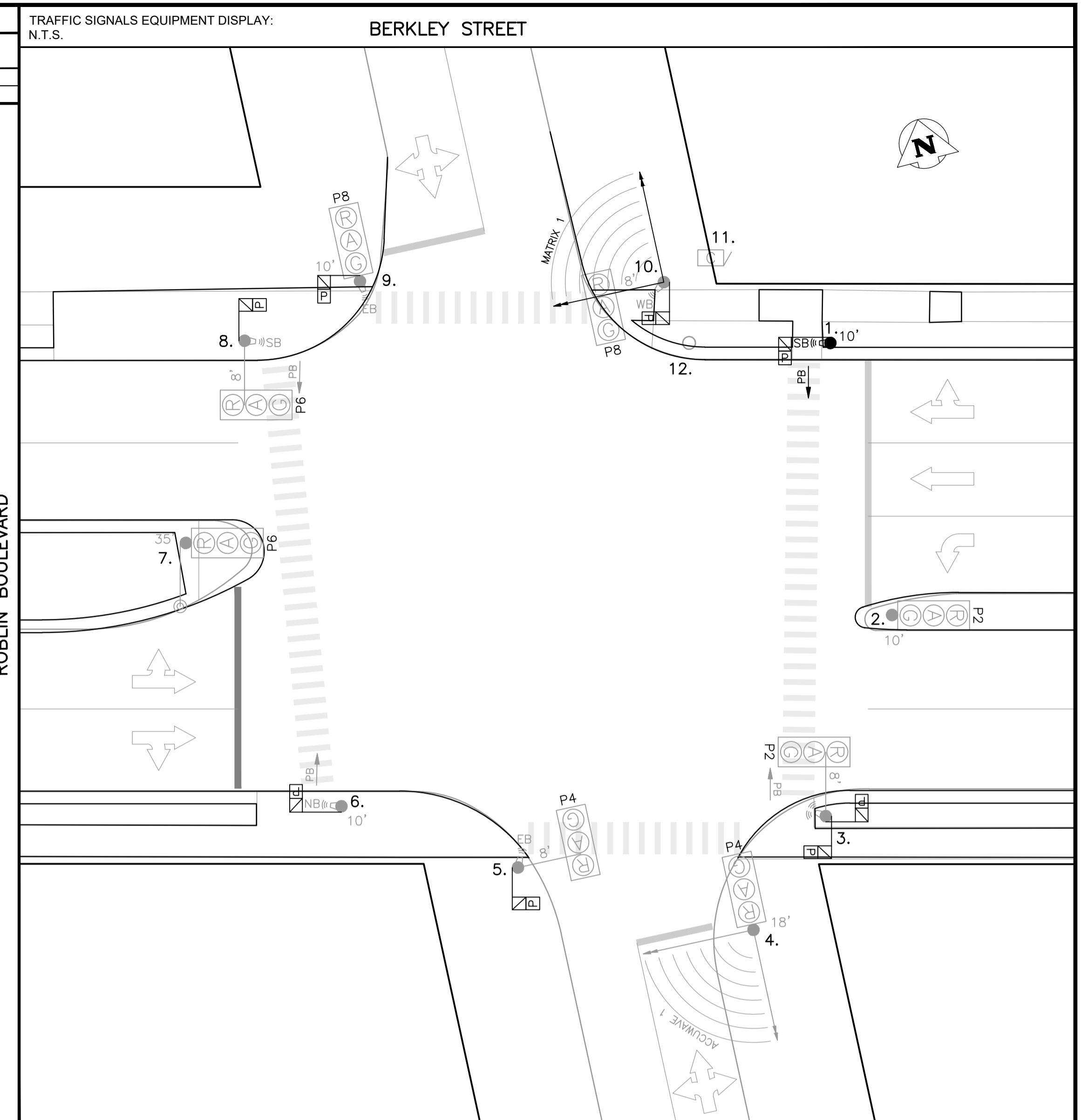
CONSTRUCTION NOTES:

- PROJECT SCOPE**
1. INSTALL CONDUIT, BASE AND PIT AS SHOWN.
 2. REBUILD SERVICE AND INSTALL GROUND ROD ON WOOD POLE #12 AS SHOWN. INSTALL MAST AND DISCONNECT ON SW QUADRANT.
 3. INSTALL EQUIPMENT AS SHOWN.
 4. TIMINGS REQUIRED.

- PROJECT COORDINATION**
1. COORDINATE WORK WITH (CA'S NAME), (204) XXX-XXXX.
 2. COORDINATE HYDRO SERVICE REBUILD WITH (HYDRO DESIGNER), (204) XXX-XXXX. RE: JUTA PERMIT No. BXXXXX



DETECTION CONNECTION DETAILS			
SENSOR NO.	POLE NO.	DETECTION LOCATION	NOTES
ACCUWAVE 1	4	NB LANE	
MATRIX 1	10	SB LANE	



EQUIPMENT DISPLAY LEGEND				EQUIPMENT LIST				EQUIPMENT LIST					
EXISTING	PROPOSED (AS SHOWN BELOW)	NO.	ARM	BASE	B.B.	NO.	ARM	BASE	B.B.	NO.	ARM	BASE	B.B.
	PEDESTRIAN HEAD	1.	10'		A	11.				11.	332 CABINET/170 CONTROLLER		
	PEDESTRIAN HEAD WITH PCS	2.	10'		A	12.				12.	HYDRO WOOD SERVICE:		
	PEDESTRIAN CORRIDOR BOX	3.	DAVIT	8'	A	AD							
	VEHICLE DETECTION AREA	4.	18'		A	A							
	PUSH BUTTON & DIRECTION	5.	DAVIT	8'	A	AD							
	APS SINGLE DIRECTION	6.	10'		A	A							
	APS DUAL DIRECTION (2 SEPARATE SPEAKERS)	7.	35'		A	AD							
	TRAFFIC SIGNAL HEAD	8.	DAVIT	8'	A	AD							
	TRAFFIC SIGNAL POLE	9.	10'		A	A							
	RED FLASHER	10.	DAVIT	8'	A	AD							
	AMBER FLASHER (CIRCUIT AT OR 18")												
	LUMINAIRE												
	CAMERA												
	LOW ARM (SHOWN FROM CENTRE)												
	HIGH ARM (SHOWN FROM SIDE)												

TRAFFIC SIGNALS UNDERGROUND LEGEND				SIGNAL BASE BOLT SQUARE TYPES			
EXISTING	PROPOSED (AS SHOWN BELOW)	DISCONNECTED (LOOPS ONLY)		BOLT SQUARE (B.S.) DIA.			
1 1/2" PE CONDUIT	POLE BASE		○	TYPE "A" - 8 1/8"	TYPE "B" - 8 3/4"		
2" PE CONDUIT	CONTROLLER BASE		□	TYPE "C" - 8 1/8" SCREW TYPE	TYPE "D" - 12 3/4", 1 1/4" DIA. BOLTS, 24" DIA.		
2" ENT CONDUIT	PEDESTAL BASE		□	TYPE "OD" - 12 3/4", 1 1/4" DIA. BOLTS, 28" DIA.	TYPE "PD" - 12 3/4", PRECAST, 1 1/4" DIA. BOLTS		
AERIAL / BURIED CABLE	TERMINAL BASE		□	TYPE "E" - 9 9/16" SCREW TYPE	TYPE "F" - 9 9/16"		
CONDUIT STUB	SERVICE BOX (PIT)		○	TYPE "G" - 8 1/8", 1 1/4" DIA. BOLTS, 89mm PROJ.	TYPE "GS" - 8 1/8", 1 1/4" DIA. BOLTS, 76mm PROJ.		
BREAK-IN	24" PRECAST PIT		△	TYPE "H" - 9 7/8" SCREW TYPE	TYPE "I" - 7 3/4"		
SPICE	30" PRECAST PIT		△	TYPE "J" - 10 5/8", 1 1/4" DIA. BOLTS	TYPE "K" - 10 5/8", PRECAST, 1 1/4" DIA. BOLTS		
SAW-CUT LOOPS	36" PRECAST PIT		△	TYPE "L" - 6", 5/8" DIA. BOLTS	TYPE "PM" - 8 1/8", PRECAST, 5/8" DIA. BOLTS		
PERFORMED LOOPS	REMOVAL		← R				

INTERNAL REVIEW			
OPERATIONS:	DATE	INITIALS	
TIMINGS (INITIAL):			
TIMINGS (PRE-FCI):			
TMC:			
STREET LIGHTING:			
TRAFFIC MANAGEMENT:			
FACILITIES PLANNING:			

EXISTING	LEGEND	PROPOSED	EXISTING	LEGEND	PROPOSED	EXISTING	LEGEND	PROPOSED
150 WM	WATERMAIN	150 WM	PROPERTY LINE	TELEPHONE	TELEPHONE	TELEPHONE	TELEPHONE	TELEPHONE
Hydrant	HYDRANT	Valve	ROADWAY	COMMUNICATION	COMMUNICATION	COMMUNICATION	COMMUNICATION	COMMUNICATION
300 SEWER	SEWER	Manhole	SIDEWALK	WOOD POLE	WOOD POLE	WOOD POLE	WOOD POLE	WOOD POLE
Manhole	MANHOLE	Catch Basin	CURB & CURB RAMP	STREET LIGHT	STREET LIGHT	STREET LIGHT	STREET LIGHT	STREET LIGHT
Catch Basin	CATCH BASIN	Curb Inlet	WARNING TILE	BANNER POLE	BANNER POLE	BANNER POLE	BANNER POLE	BANNER POLE
Curb Inlet	CURB INLET	Hydro	SLOPE	RAILWAY POLE	RAILWAY POLE	RAILWAY POLE	RAILWAY POLE	RAILWAY POLE
Hydro	HYDRO	Gas	CULVERT	GUY-WIRE	GUY-WIRE	GUY-WIRE	GUY-WIRE	GUY-WIRE
Gas	GAS	Tree	BUILDING	FENCE	FENCE	FENCE	FENCE	FENCE
Tree	TREE			GUARDRAIL	GUARDRAIL	GUARDRAIL	GUARDRAIL	GUARDRAIL

UNDERGROUND STRUCTURES				CONSTRUCTION REVISIONS			
UNDERGROUND STRUCTURES ID	DATE (YYYY/MM/DD)	NO.	REVISION	NO.	REVISION	DATE (YYYY/MM/DD)	BY
		A	ISSUED FOR INTERNAL REVIEW			2020/03/20	R.S.

DESIGNED BY	R.S.
DRAWN BY	R.S.
CHECKED BY	C.H.
APPROVED BY	

WT PENDING

PRELIMINARY

NOT FOR CONSTRUCTION

THE CITY OF WINNIPEG
PUBLIC WORKS DEPARTMENT
TRANSPORTATION DIVISION

TRAFFIC SIGNALS
BERKLEY ST. & ROBLIN BLVD.

DRAWING NUMBER:
S-1033

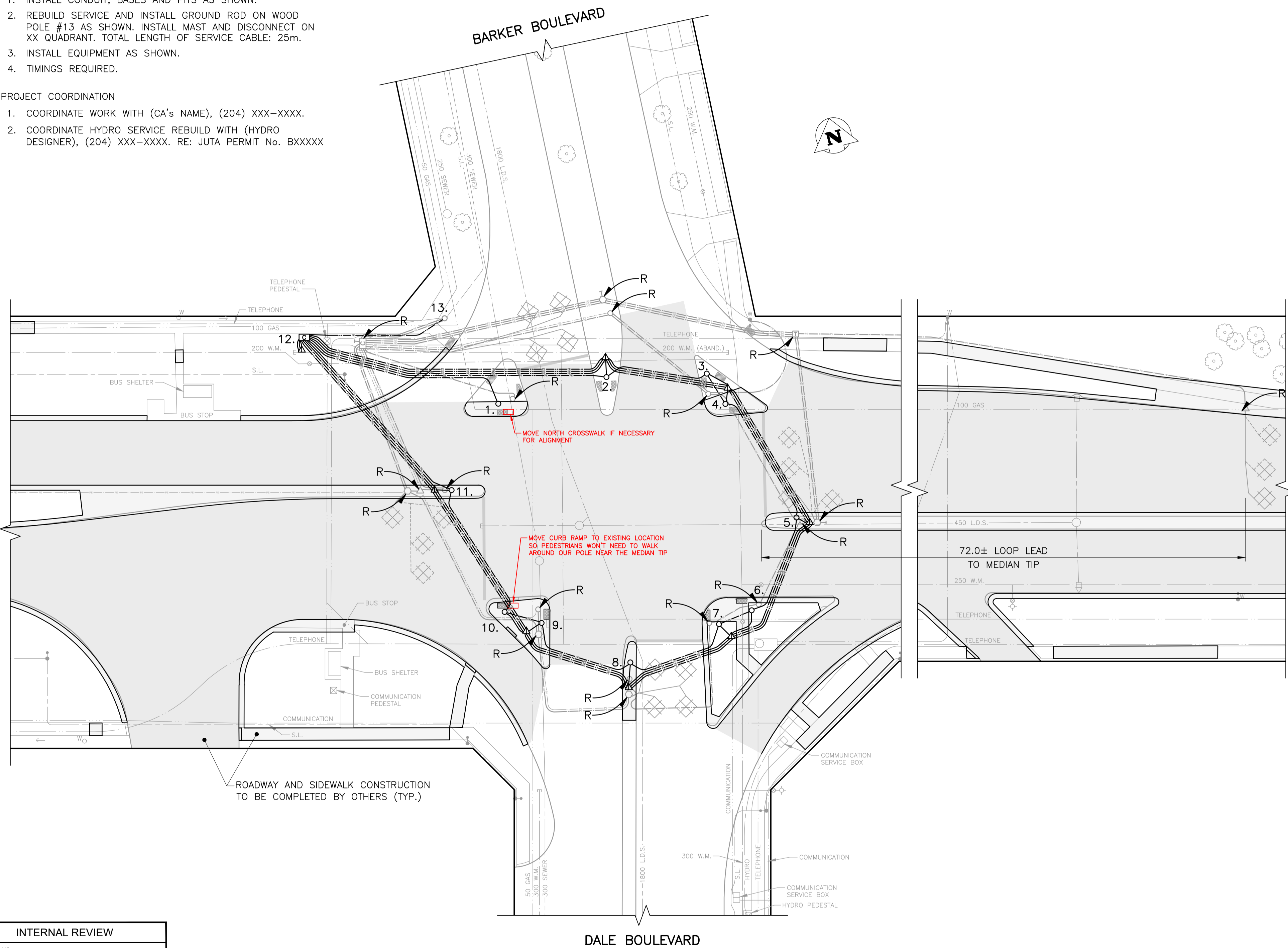
CONSTRUCTION NOTES:

PROJECT SCOPE

- 1. INSTALL CONDUIT, BASES AND PITS AS SHOWN.
2. REBUILD SERVICE AND INSTALL GROUND ROD ON WOOD POLE #13 AS SHOWN. INSTALL MAST AND DISCONNECT ON XX QUADRANT. TOTAL LENGTH OF SERVICE CABLE: 25m.
3. INSTALL EQUIPMENT AS SHOWN.
4. TIMINGS REQUIRED.

PROJECT COORDINATION

- 1. COORDINATE WORK WITH (CA'S NAME), (204) XXX-XXXX.
2. COORDINATE HYDRO SERVICE REBUILD WITH (HYDRO DESIGNER), (204) XXX-XXXX. RE: JUTA PERMIT No. BXXXXX

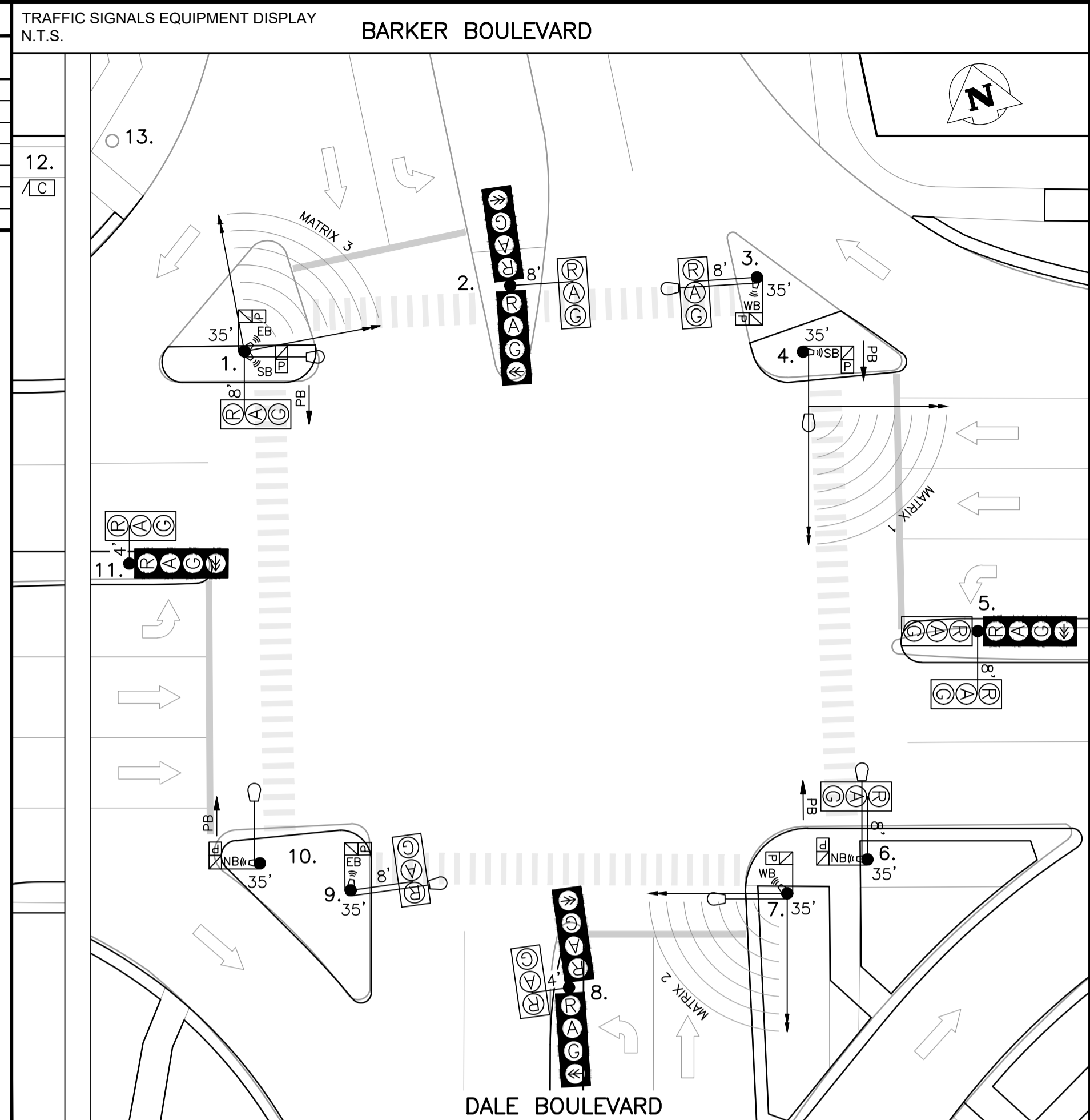


PLAN VIEW: UNDERGROUND CONSTRUCTION

1:300

INTERNAL REVIEW table with columns for OPERATIONS, TIMINGS (INITIAL), TIMINGS (PRE-FC), TMC, STREET LIGHTING, TRAFFIC MANAGEMENT, and FACILITIES PLANNING.

DETECTION CONNECTION DETAILS table with columns for SENSOR NO., POLE NO., DETECTION LOCATION, and NOTES.



EQUIPMENT DISPLAY LEGEND table defining symbols for pedestrian head, vehicle detection area, traffic signal head, traffic signal pole, red flasher, luminaire, push button & direction, APS single direction, APS dual direction, and camera.

Equipment list table with columns for NO., EQUIPMENT LIST, ARM, BASE, B.B. and a second set of columns for NO., EQUIPMENT LIST, ARM, BASE, B.B.

TRAFFIC SIGNALS UNDERGROUND LEGEND and SIGNAL BASE BOLT SQUARE TYPES tables defining symbols for various underground components and bolt square types.

Legend table for existing and proposed underground structures, including watermain, sewer, gas, telephone, and communication lines.

UNDERGROUND STRUCTURES table with columns for UNDERGROUND STRUCTURES ID and DATE.

CONSTRUCTION REVISIONS table with columns for NO., REVISION, DATE, and BY.

Table for R.S. (DESIGNED BY), R.S. (DRAWN BY), R.P. (CHECKED BY), and APPROVED BY.

WT PENDING, PRELIMINARY, NOT FOR CONSTRUCTION

THE CITY OF WINNIPEG PUBLIC WORKS DEPARTMENT TRANSPORTATION DIVISION. TRAFFIC SIGNALS BARKER BLVD./DALE BLVD. & ROBLIN BLVD. S-1204

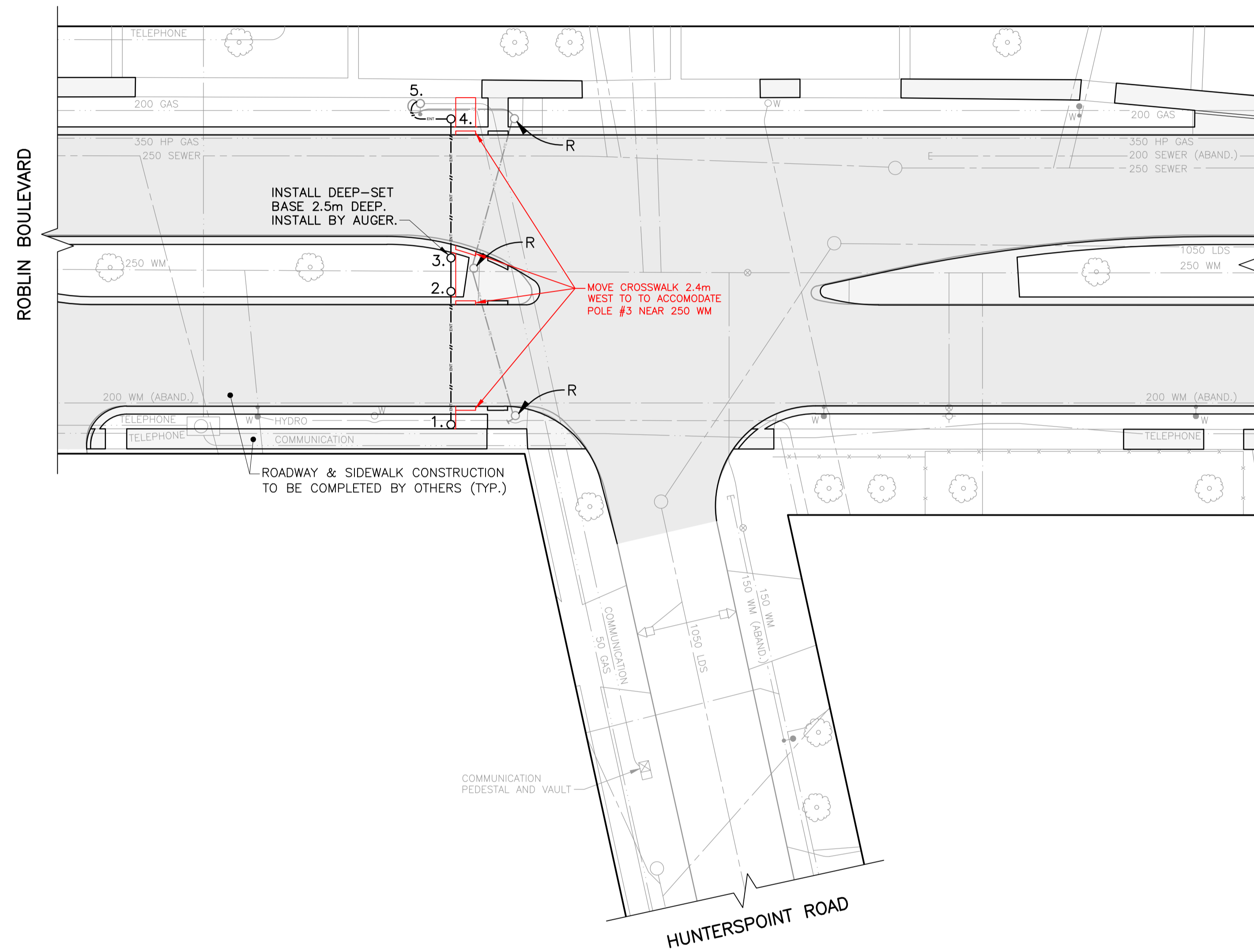
CONSTRUCTION NOTES:

PROJECT SCOPE

1. INSTALL CONDUIT AND BASES AS SHOWN. INSTALL DEEP-SET BASE #3 2.5m DEEP.
2. INSTALL EQUIPMENT AS SHOWN.
3. CROSSING TIME FOR NORTH CROSSWALK: 17 SECONDS, SOUTH CROSSWALK: 16 SECONDS.

PROJECT COORDINATION

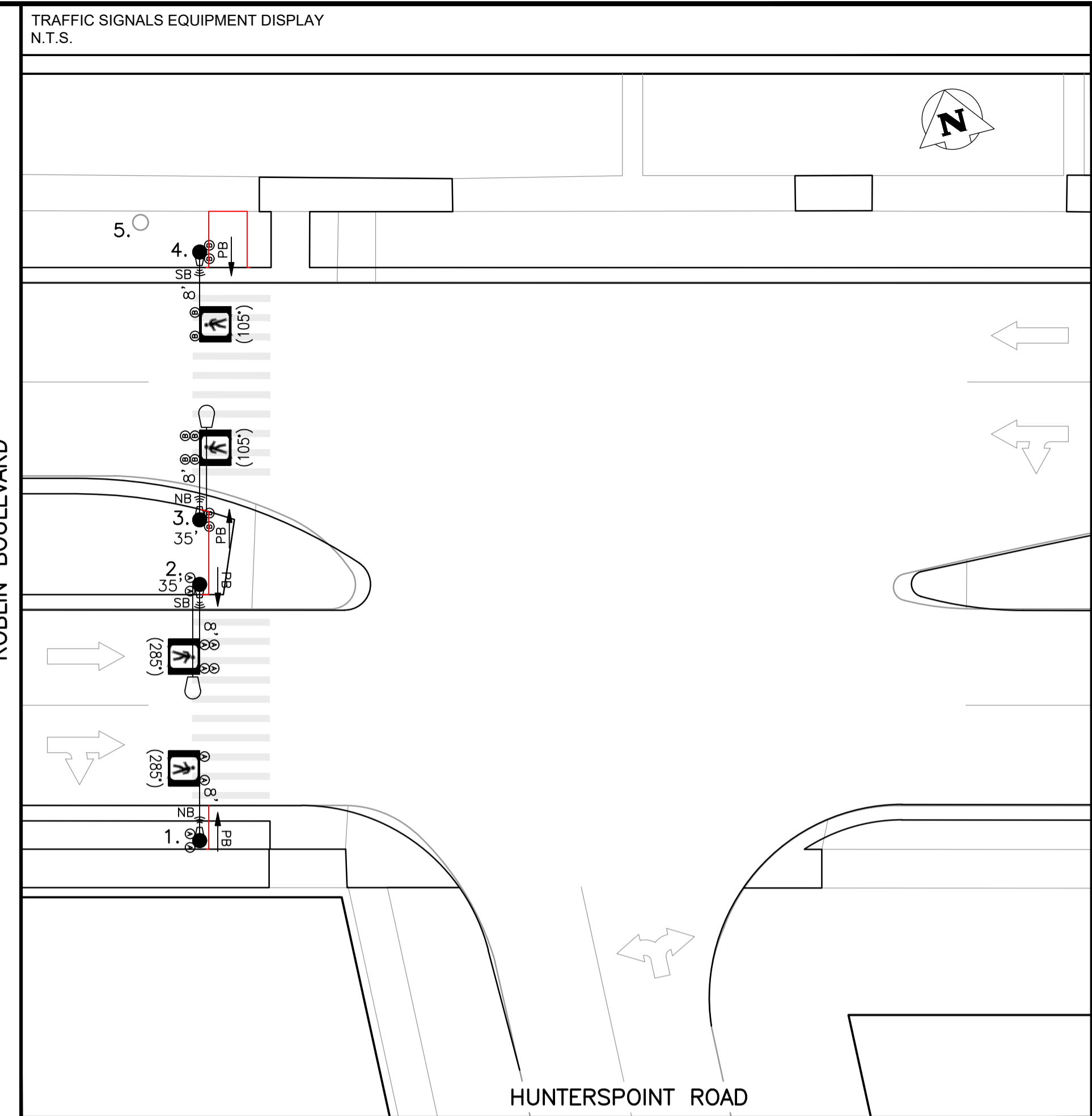
1. COORDINATE WORK WITH (CA's NAME), (204) XXX-XXXX.



PLAN VIEW: UNDERGROUND CONSTRUCTION

1:250

INTERNAL REVIEW			
OPERATIONS:	DATE	INITIALS	
TIMINGS (INITIAL):	DATE	INITIALS	
TIMINGS (PRE-FCI):	DATE	INITIALS	
TMC:	DATE	INITIALS	
STREET LIGHTING:	DATE	INITIALS	
TRAFFIC MANAGEMENT:	DATE	INITIALS	
FACILITIES PLANNING:	DATE	INITIALS	



EQUIPMENT DISPLAY LEGEND

EXISTING	PROPOSED (AS SHOWN BELOW)	PROPOSED (AS SHOWN BELOW)	PROPOSED (AS SHOWN BELOW)

NO.	EQUIPMENT LIST	ARM	BASE	B.B.	NO.	EQUIPMENT LIST	ARM	BASE	B.B.
1.	CANTILEVER		8' OD	DC					
2.	35' SIGNAL FOR XX WATT LUMINAIRE		8' OD	DD					
3.	35' SIGNAL FOR XX WATT LUMINAIRE *BASE AT 2.5m DEPTH		8' G*	GD					
4.	CANTILEVER		8' OD	DC					
5.	HYDRO WOOD SERVICE:								

TRAFFIC SIGNALS UNDERGROUND LEGEND

EXISTING	PROPOSED (AS SHOWN BELOW)	PROPOSED (AS SHOWN BELOW)	PROPOSED (AS SHOWN BELOW)

SIGNAL BASE BOLT SQUARE TYPES

BOLT SQUARE (B.S.)	DIA.
TYPE "A" - 8 1/8"	
TYPE "B" - 6 3/4"	
TYPE "C" - 8 1/8" SCREW TYPE	
TYPE "D" - 12 3/4", 1 1/4" DIA. BOLTS, 24" DIA.	
TYPE "OD" - 12 3/4", 1 1/4" DIA. BOLTS, 28" DIA.	
TYPE "PD" - 12 3/4", PRECAST, 1 1/4" DIA. BOLTS	
TYPE "E" - 9 9/16" SCREW TYPE	
TYPE "F" - 9 9/16"	
TYPE "G" - 8 1/8", 1 1/4" DIA. BOLTS, 89mm PROJ.	
TYPE "GS" - 8 1/8", 1 1/4" DIA. BOLTS, 76mm PROJ.	
TYPE "PG" - 8 1/8", PRECAST, 1 1/4" DIA. BOLTS	
TYPE "H" - 9 7/8" SCREW TYPE	
TYPE "I" - 7 3/4"	
TYPE "J" - 10 5/8", 1 1/4" DIA. BOLTS	
TYPE "K" - 10 5/8", PRECAST, 1 1/4" DIA. BOLTS	
TYPE "L" - 6", 5/8" DIA. BOLTS	
TYPE "PM" - 8 1/8", PRECAST, 5/8" DIA. BOLTS	

EXISTING	LEGEND	PROPOSED	EXISTING	LEGEND	PROPOSED	EXISTING	LEGEND	PROPOSED
	WATERMAIN			PROPERTY LINE			TELEPHONE	
	HYDRANT			ROADWAY			TELEPHONE	
	SEWER			PROPERTY LINE			TELEPHONE	
	HYDRO			PROPERTY LINE			TELEPHONE	
	GAS			PROPERTY LINE			TELEPHONE	
	GAS			PROPERTY LINE			TELEPHONE	
	WATERMAIN			PROPERTY LINE			TELEPHONE	
	HYDRANT			PROPERTY LINE			TELEPHONE	
	SEWER			PROPERTY LINE			TELEPHONE	
	HYDRO			PROPERTY LINE			TELEPHONE	
	GAS			PROPERTY LINE			TELEPHONE	

UNDERGROUND STRUCTURES	
UNDERGROUND STRUCTURES ID	DATE (YYYYMMDD)
WATER & WASTE REVIEW ID	

CONSTRUCTION REVISIONS			
NO.	REVISION	DATE (YYYYMMDD)	BY
A	ISSUED FOR INTERNAL REVIEW		

ACCOUNTS:	
R.S.	DESIGNED BY
R.S.	DRAWN BY
	CHECKED BY
	APPROVED BY

PRELIMINARY
NOT FOR CONSTRUCTION

THE CITY OF WINNIPEG
PUBLIC WORKS DEPARTMENT
TRANSPORTATION DIVISION

**PEDESTRIAN CORRIDOR
HUNTERSPOINT RD. & ROBLIN BLVD.**

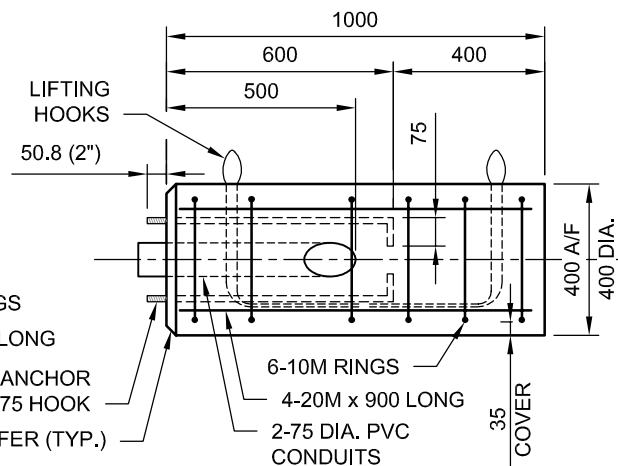
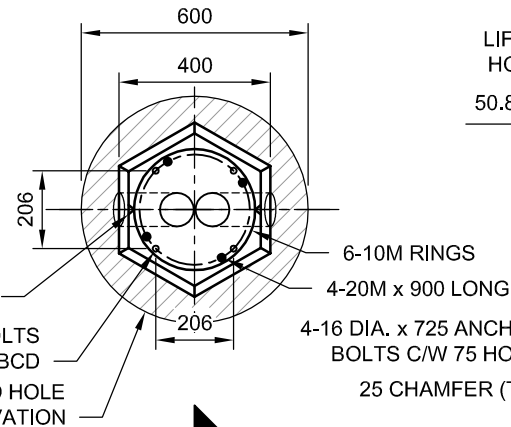
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DRAWING NUMBER: S-1413

15:41:00 - 2024/03/27 10:41:00 AM - 2024/03/27 10:41:00 AM - 2024/03/27 10:41:00 AM

OPTION A
(400 A/F HEX. SHAPE)

20 mm DEEP "V" GROOVE ON CHAMFER INDICATING LOCATION OF ACCESS HOLES (2 LOCATIONS)

4-16 DIA. ANCHOR BOLTS AT 292 BCD
600 DIA. AUGERED HOLE OR 800 x 800 EXCAVATION

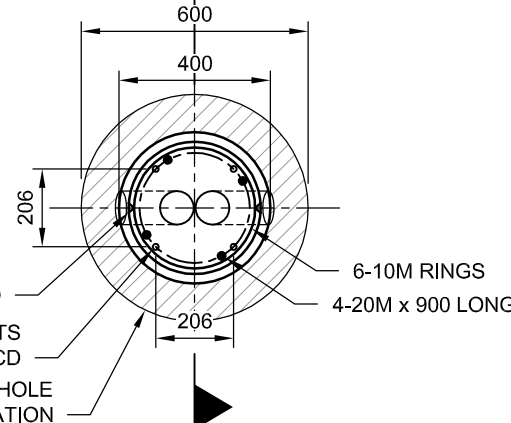


A SECTION (TYP.)
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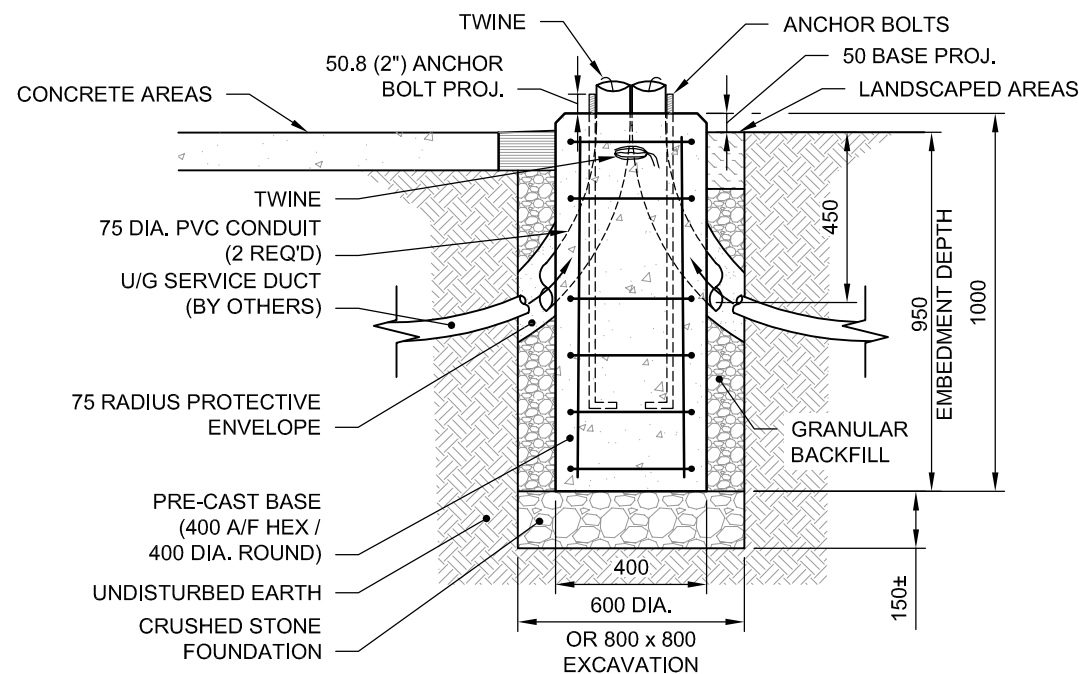
OPTION B
(400 DIA. ROUND SHAPE)

20 mm DEEP "V" GROOVE ON CHAMFER INDICATING LOCATION OF ACCESS HOLES (2 LOCATIONS)

4-16 DIA. ANCHOR BOLTS AT 292 BCD
600 DIA. AUGERED HOLE OR 800 x 800 EXCAVATION



PLAN
1:20



PRE-CAST BASE INSTALLATION
1:20

NOTES:

ANCHOR BOLTS

- 4-16 mm DIA. ANCHOR BOLTS 725 LONG C/W 75 mm HOOK
- CAN/CSA G40.21-GR.300W
- TOP 125 mm THREADED UNC CLASS 2A
- HOT DIP GALVANIZED FULL LENGTH TO ASTM A153 CLASS C
- BCD = BOLT CIRCLE DIAMETER TO CENTER OF BOLT GROUP
- BOLTS SHALL BE HELD IN PLACE ACCURATELY WITH A STEEL TEMPLATE.
- THREADED PORTION OF ANCHOR BOLTS SHALL BE PROTECTED FROM FOULING PRIOR TO CONCRETE POUR.

PRE-CAST CONCRETE BASE

- CAN/CSA SPECIFICATION: CAN3-A23.4-09
- CEMENT: TYPE HS SULPHATE RESISTANT, S2 EXPOSURE
- CONCRETE STRENGTH: 35 MPa AT 28 DAYS
- MAXIMUM AGGREGATE: 20 mm, AIR CONTENT 3-6%
- 25 mm CHAMFER ON ALL EXPOSED CONCRETE EDGES.
- PVC CONDUITS: 75 (3") DIA. LONG RADIUS (24") SWEEP ELBOW (90°)
- CONDUITS SHALL BE HELD SECURELY IN CENTER OF BASE PRIOR TO CONCRETE POUR.
- CUT CONDUITS FLUSH AT TOP AND SIDES OF CONCRETE BASE AFTER CURING.
- INDENT THE NUMBER "SD-315.A (1.0 m)" ON THE TOP OF THE BASE.
- LIFTING HOOKS: 5 mm 7 x 19 STAINLESS STEEL CABLE
- WEIGHT OF PRE-CAST BASE: 302 kg

REINFORCING STEEL

- CAN/CSA G30.18-GR.400W
- ALL BARS TO BE HOT DIP GALVANIZED.
- CLEAR COVER 35 mm

BACKFILL MATERIAL

- CRUSHED STONE FOUNDATION: TYPE 3 AS PER CW 2030 2.1.2 AND 2.1.5.
- BACKFILL: GRANULAR BACKFILL TYPE 2 AS PER CW 2030 2.1.2 TO 2.1.5.

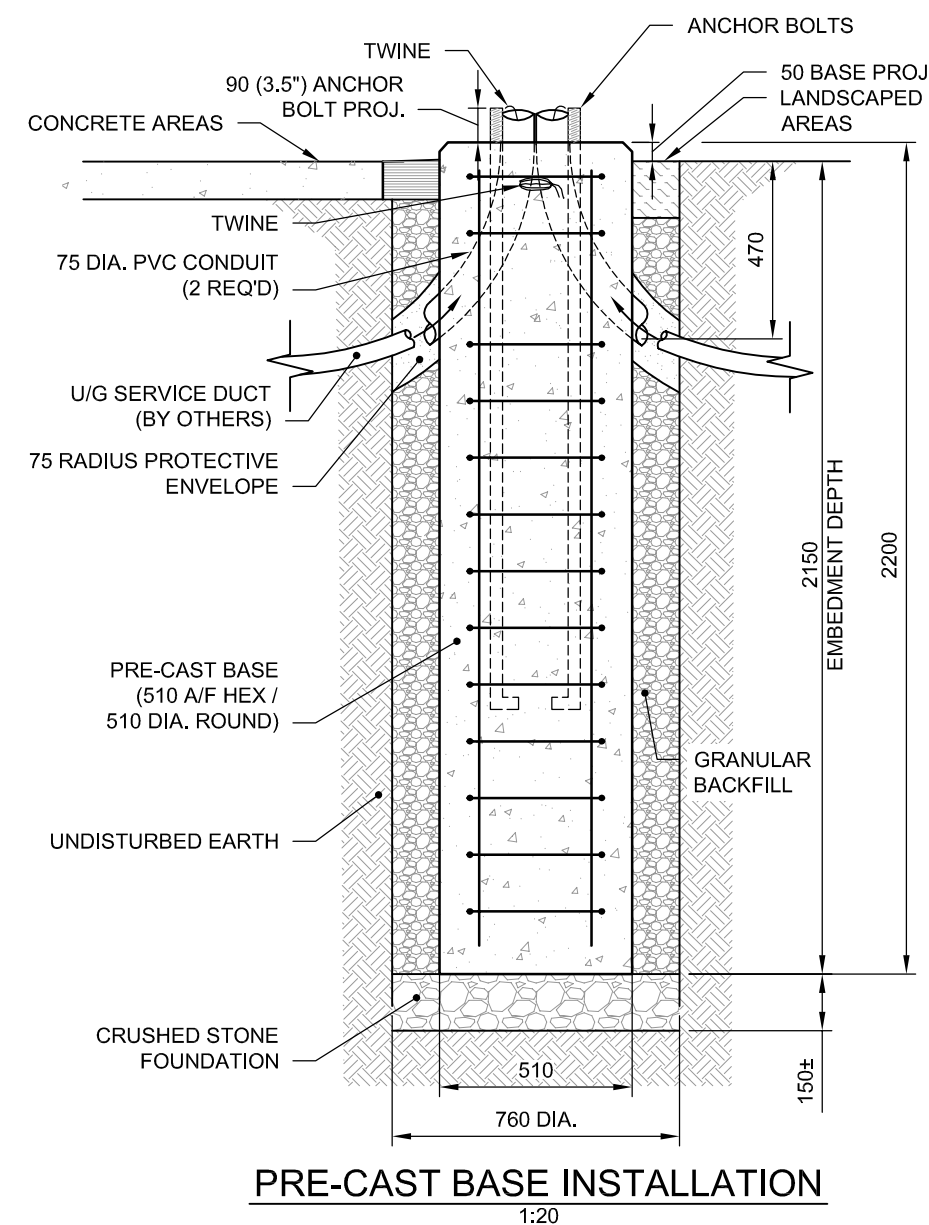
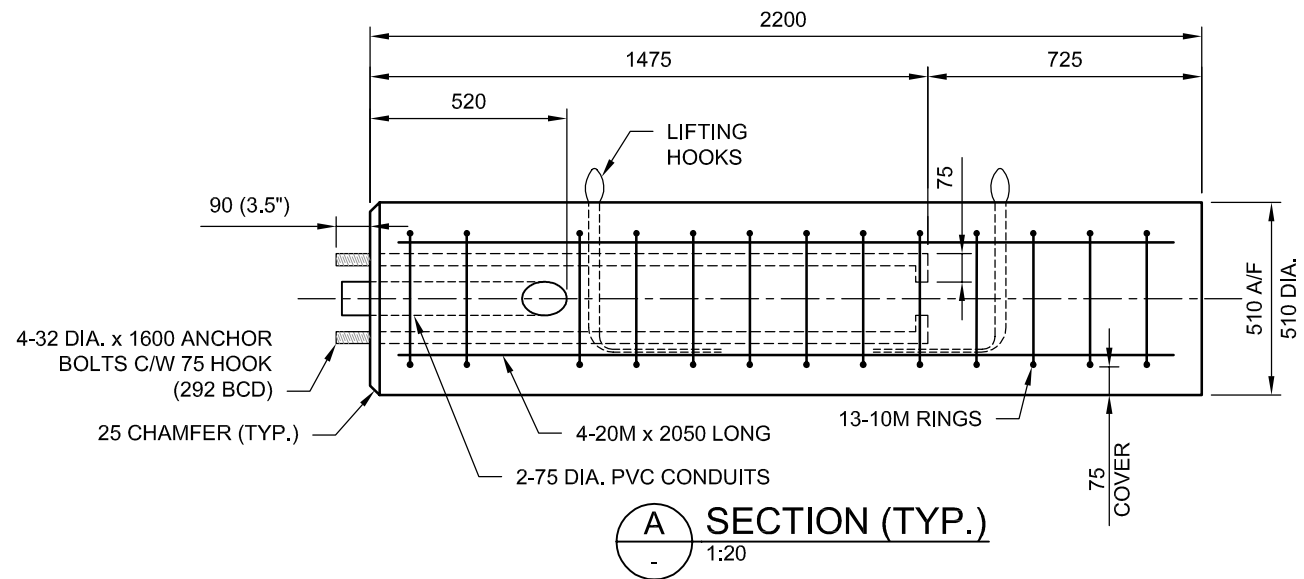
INSTALLATION

- MARK THE CENTER AND OFFSET LOCATIONS BEFORE EXCAVATING.
- OPEN CUT OR SOFT DIG/AUGER DRILL EXCAVATION.
- EXCAVATION DEPTH EQUALS THE EMBEDMENT DEPTH PLUS 150 mm ± FOR CRUSHED STONE FOUNDATION.
- AUGER HOLE 600 DIA. OR EXCAVATION 800 x 800.
- PLACE, LEVEL, AND COMPACT CRUSHED STONE FOUNDATION TO EDGE OF EXCAVATION.
- VERIFY ORIENTATION OF PRE-CAST BASE ANCHOR BOLTS AND CONDUIT HOLES TO SITE LAYOUT DRAWINGS.
- SET BASE UNIT WHILE IN A PLUMB ORIENTATION INTO FINAL LOCATION (DO NOT TILT UP).
- SET UNIT TO PROPER ELEVATION, ±10 mm.
- BRACE BASE AS REQUIRED TO MAINTAIN UNIT IS LEVEL, TRUE, AND PLUMB UNTIL BACKFILL HAS BEEN PLACED AND CONSOLIDATED.
- PLACE AND COMPACT GRANULAR BACKFILL UNIFORMLY AROUND PERIMETER OF THE BASE IN 150 mm LIFTS.
- PAUSE BACKFILLING AT BOTTOM OF CONDUIT TRENCH, THEN INSTALL BELOW GRADE ELECTRICAL CONNECTIONS.
- FINISH BACKFILLING AND COMPACTING IN 150 mm LIFTS TO THE ROUGH GRADE OR AS DIRECTED BY THE CONTRACT ADMINISTRATOR.
- REMOVE SOILS OR STAINS FROM THE EXPOSED CONCRETE.

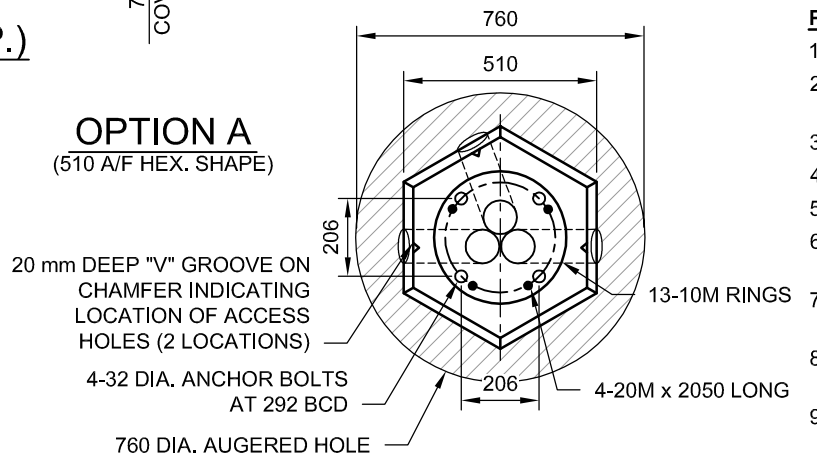
DIMENSIONS ARE IN MILLIMETRES
(UNLESS OTHERWISE NOTED)



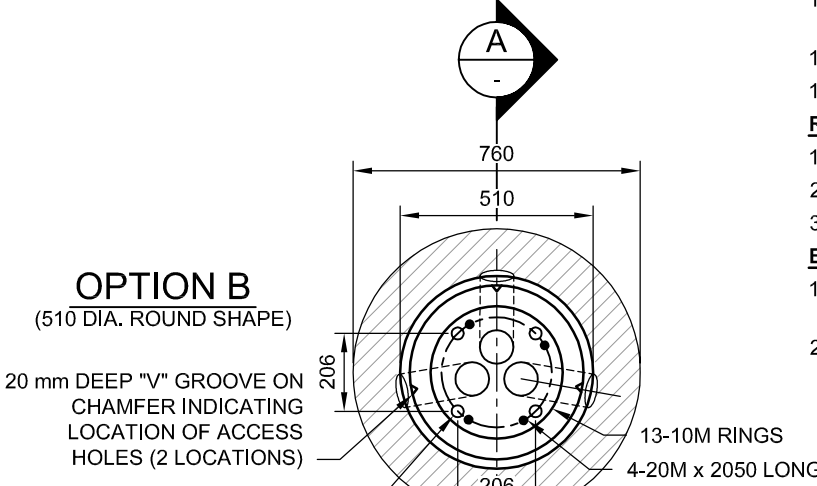
THE CITY OF WINNIPEG PUBLIC WORKS DEPARTMENT		Revisions			
		No.	Date	Description	By
Reference Spec. No. CW 3620		2	07/11/18	GENERAL REVISIONS BY DILLON CONSULTING	KNL
		1	04/06/18	DESIGNED BY DILLON CONSULTING	KNL
SIGNAL POLE BASE-TYPE PM (PUSHBUTTON/SPEAKER-20 DIA. BOLTS)		Designed By:		Drawn By:	Scale : AS SHOWN
		KNL		KNL	
		Checked By:		Date:	
SSR		07/11/2018			
Approved:					



OPTION A
(510 A/F HEX. SHAPE)



OPTION B
(510 DIA. ROUND SHAPE)



PLAN
1:20

NOTES:

ANCHOR BOLTS

- 4-32 mm DIA. ANCHOR BOLTS 1600 LONG C/W 75 mm HOOK
- CAN/CSA G40.21-GR.300W
- TOP 125 mm THREADED UNC CLASS 2A
- HOT DIP GALVANIZED FULL LENGTH TO ASTM A153 CLASS C
- BCD = BOLT CIRCLE DIAMETER TO CENTER OF BOLT GROUP
- BOLTS SHALL BE HELD IN PLACE ACCURATELY WITH A STEEL TEMPLATE.
- THREADED PORTION OF ANCHOR BOLTS SHALL BE PROTECTED FROM FOULING PRIOR TO CONCRETE POUR.

PRE-CAST CONCRETE BASE

- CAN/CSA SPECIFICATION: CAN3-A23.4-09
- CEMENT: TYPE HS SULPHATE RESISTANT, S2 EXPOSURE
- CONCRETE STRENGTH: 35 MPa AT 28 DAYS
- MAXIMUM AGGREGATE: 20 mm, AIR CONTENT 3-6%
- 25 mm CHAMFER ON ALL EXPOSED CONCRETE EDGES.
- PVC CONDUITS: 75 (3") DIA. LONG RADIUS (24") SWEEP ELBOW (90°)
- CONDUITS SHALL BE PLACED TO FIT IN HEX. SHAPE BASE SO THAT THEY EXIT THROUGH A FLAT SURFACE.
- CONDUITS SHALL BE HELD SECURELY IN CENTER OF BASE PRIOR TO CONCRETE POUR.
- CUT CONDUITS FLUSH AT TOP AND SIDES OF CONCRETE BASE AFTER CURING.
- INDENT THE NUMBER "SD-315.B" ON THE TOP OF THE BASE.
- LIFTING HOOKS: 8 mm 7 x 19 STAINLESS STEEL CABLE
- WEIGHT OF PRE-CAST BASE: 1080 kg

REINFORCING STEEL

- CAN/CSA G30.18-GR.400W
- ALL BARS TO BE HOT DIP GALVANIZED.
- CLEAR COVER 75 mm

BACKFILL MATERIAL

- CRUSHED STONE FOUNDATION: TYPE 3 AS PER CW 2030 2.1.2 AND 2.1.5.
- BACKFILL: GRANULAR BACKFILL TYPE 2 AS PER CW 2030 2.1.2 TO 2.1.5.

INSTALLATION

- MARK THE CENTER AND OFFSET LOCATIONS BEFORE EXCAVATING.
- SOFT DIG/AUGER DRILL EXCAVATION.
- EXCAVATION DEPTH EQUALS THE EMBEDMENT DEPTH PLUS 150 mm ± FOR CRUSHED STONE FOUNDATION.
- AUGER HOLE 760 DIA.
- PLACE, LEVEL, AND COMPACT CRUSHED STONE FOUNDATION TO EDGE OF EXCAVATION.
- VERIFY ORIENTATION OF PRE-CAST BASE ANCHOR BOLTS AND CONDUIT HOLES TO SITE LAYOUT DRAWINGS.
- SET BASE UNIT WHILE IN A PLUMB ORIENTATION INTO FINAL LOCATION (DO NOT TILT UP).
- SET UNIT TO PROPER ELEVATION, ±10 mm.
- BRACE BASE AS REQUIRED TO MAINTAIN UNIT IS LEVEL, TRUE, AND PLUMB UNTIL BACKFILL HAS BEEN PLACED AND CONSOLIDATED.
- PLACE AND COMPACT GRANULAR BACKFILL UNIFORMLY AROUND PERIMETER OF THE BASE IN 150 mm LIFTS.
- PAUSE BACKFILLING AT BOTTOM OF CONDUIT TRENCH, THEN INSTALL BELOW GRADE ELECTRICAL CONNECTIONS.
- FINISH BACKFILLING AND COMPACTING IN 150 mm LIFTS TO THE ROUGH GRADE OR AS DIRECTED BY THE CONTRACT ADMINISTRATOR.
- REMOVE SOILS OR STAINS FROM THE EXPOSED CONCRETE.

DIMENSIONS ARE IN MILLIMETRES
(UNLESS OTHERWISE NOTED)

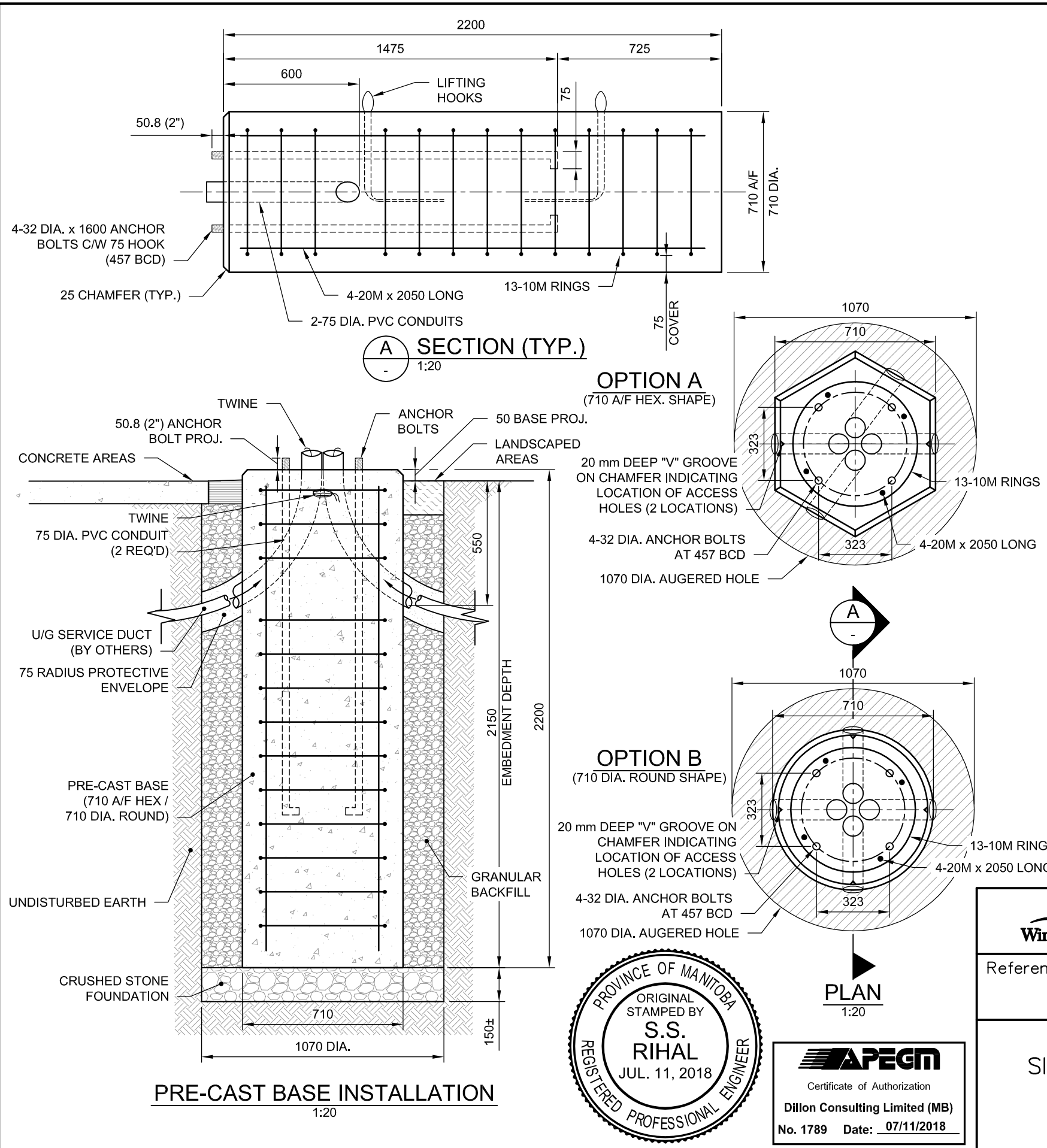


THE CITY OF WINNIPEG
PUBLIC WORKS DEPARTMENT

Reference Spec. No.
CW 3620

SIGNAL POLE BASE-TYPE PG
(MEDIUM DUTY-32 DIA. BOLTS)

Revisions			
No.	Date	Description	By
1	07/11/18	DESIGNED BY DILLON CONSULTING	KNL
Designed By:		Drawn By:	Scale :
KNL		KNL	AS SHOWN
Checked By:		Date:	Drawing No.
SSR		07/11/18	SD-315.B
Approved:			



NOTES:

ANCHOR BOLTS

1. 4-32 mm DIA. ANCHOR BOLTS 1600 LONG C/W 75 mm HOOK
2. CAN/CSA G40.21-GR.300W
3. TOP 125 mm THREADED UNC CLASS 2A
4. HOT DIP GALVANIZED FULL LENGTH TO ASTM A153 CLASS C
5. BCD = BOLT CIRCLE DIAMETER TO CENTER OF BOLT GROUP
6. BOLTS SHALL BE HELD IN PLACE ACCURATELY WITH A STEEL TEMPLATE.
7. THREADED PORTION OF ANCHOR BOLTS SHALL BE PROTECTED FROM FOULING PRIOR TO CONCRETE POUR.

PRE-CAST CONCRETE BASE

1. CAN/CSA SPECIFICATION: CAN3-A23.4-09
2. CEMENT: TYPE HS SULPHATE RESISTANT, S2 EXPOSURE
3. CONCRETE STRENGTH: 35 MPa AT 28 DAYS
4. MAXIMUM AGGREGATE: 20 mm, AIR CONTENT 3-6%
5. 25 mm CHAMFER ON ALL EXPOSED CONCRETE EDGES.
6. PVC CONDUITS: 75 (3") DIA. LONG RADIUS (24") SWEEP ELBOW (90°)
7. CONDUITS SHALL BE PLACED TO FIT IN HEX. SHAPE BASE SO THAT THEY EXIT THROUGH A FLAT SURFACE.
8. CONDUITS SHALL BE HELD SECURELY IN CENTER OF BASE PRIOR TO CONCRETE POUR.
9. CUT CONDUITS FLUSH AT TOP AND SIDES OF CONCRETE BASE AFTER CURING.
10. INDENT THE NUMBER "SD-XXX" ON THE TOP OF THE BASE.
11. LIFTING HOOKS: 10 mm 7 x 19 STAINLESS STEEL CABLE
12. WEIGHT OF PRE-CAST BASE: 2090 kg

REINFORCING STEEL

1. CAN/CSA G30.18-GR.400W
2. ALL BARS TO BE HOT DIP GALVANIZED.
3. CLEAR COVER 75 mm

BACKFILL MATERIAL

1. CRUSHED STONE FOUNDATION: TYPE 3 AS PER CW 2030 2.1.2 AND 2.1.5.
2. BACKFILL: GRANULAR BACKFILL TYPE 2 AS PER CW 2030 2.1.2 TO 2.1.5.

INSTALLATION

1. MARK THE CENTER AND OFFSET LOCATIONS BEFORE EXCAVATING.
2. SOFT DIG/AUGER DRILL EXCAVATION.
3. EXCAVATION DEPTH EQUALS THE EMBEDMENT DEPTH PLUS 150 mm ± FOR CRUSHED STONE FOUNDATION.
4. AUGER HOLE 1070 DIA.
5. PLACE, LEVEL, AND COMPACT CRUSHED STONE FOUNDATION TO EDGE OF EXCAVATION.
6. VERIFY ORIENTATION OF PRE-CAST BASE ANCHOR BOLTS AND CONDUIT HOLES TO SITE LAYOUT DRAWINGS.
7. SET BASE UNIT WHILE IN A PLUMB ORIENTATION INTO FINAL LOCATION (DO NOT TILT UP).
8. SET UNIT TO PROPER ELEVATION, ±10 mm.
9. BRACE BASE AS REQUIRED TO MAINTAIN UNIT IS LEVEL, TRUE, AND PLUMB UNTIL BACKFILL HAS BEEN PLACED AND CONSOLIDATED.
10. PLACE AND COMPACT GRANULAR BACKFILL UNIFORMLY AROUND PERIMETER OF THE BASE IN 150 mm LIFTS.
11. PAUSE BACKFILLING AT BOTTOM OF CONDUIT TRENCH, THEN INSTALL BELOW GRADE ELECTRICAL CONNECTIONS.
12. FINISH BACKFILLING AND COMPACTING IN 150 mm LIFTS TO THE ROUGH GRADE OR AS DIRECTED BY THE CONTRACT ADMINISTRATOR.
13. REMOVE SOILS OR STAINS FROM THE EXPOSED CONCRETE.

DIMENSIONS ARE IN MILLIMETRES (UNLESS OTHERWISE NOTED)

<p>THE CITY OF WINNIPEG PUBLIC WORKS DEPARTMENT</p>	<p>Reference Spec. No. CW 3620</p>			
	<p>SIGNAL POLE BASE—TYPE POD (MEDIUM DUTY—32 DIA. BOLTS)</p>			
<p style="text-align: right;">Revisions</p>				
No.	Date	Description	By	
1	07/11/18	DESIGNED BY DILLON CONSULTING	KNL	
Designed By:	KNL	Drawn By:	KNL	Scale : AS SHOWN
Checked By:	SSR	Date:	07/11/18	Drawing No. SD-315.C
Approved:				

