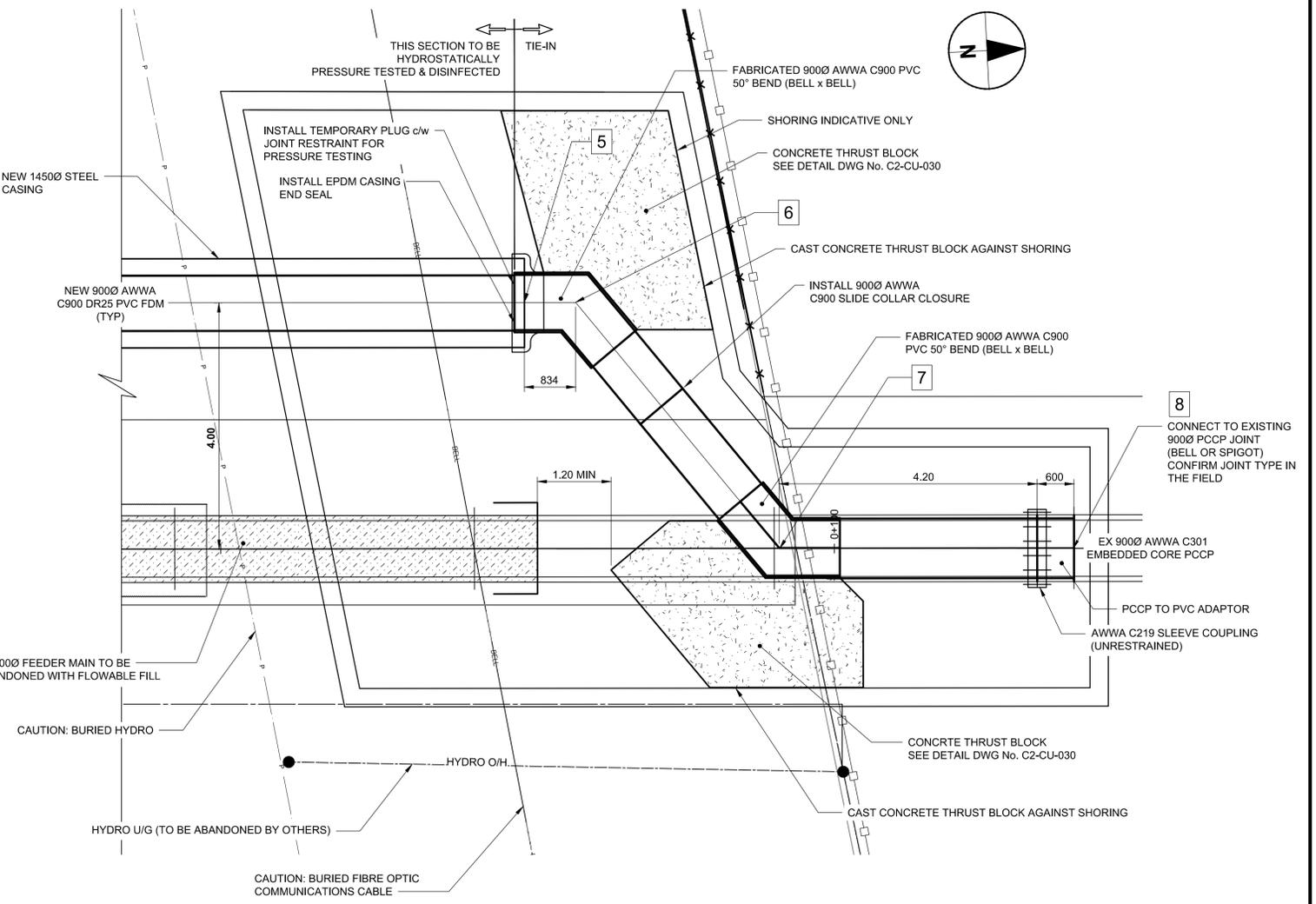


NEW FEEDER MAIN CONNECTION - SOUTH END
Scale 1:50



NEW FEEDER MAIN CONNECTION - NORTH END
Scale 1:50

SHORING NOTES:

- THE CONTRACTOR IS RESPONSIBLE FOR DESIGN & LAYOUT OF SHORING SYSTEMS
- THE CONTRACTOR SHALL CONSTRUCT A TIGHT SHORING SYSTEM TO A MINIMUM OF 150 ABOVE THE TOP OF THE EXISTING FEEDER MAIN TO PROTECT THE EX FEEDER MAIN AND EMBEDMENT SOILS FROM MOVEMENT & UNDERMINING UNTIL COMMENCEMENT OF EXCAVATION FOR THE FINAL TIE-INS
- SHAFTS SHALL BE BACKFILLED WITH CW2030 TYPE 2 MATERIAL, COMPACTED TO 95% SPMDD TO A MINIMUM OF 300 ABOVE THE TOP OF THE THRUST BLOCKS
- SHORING REMOVAL AND BACKFILLING SHALL BE STAGED TO PROCLUDE VOIDS BEHIND AND ADJACENT TO THE THRUST BLOCKS EXCEPT WHERE NOTED
- SHORING TO BE LEFT IN PLACE WHERE THRUST BLOCKS ARE CAST AGAINST THE SHORING WALL. SHORING TO BE CUT-OFF WITHIN 0.3 OF THE TOP OF THE THRUST BLOCK
- WOOD LAGGING TO BE REMOVED (WHERE SHORING LEFT-IN-PLACE) PRIOR TO CASTING CONCRETE THRUST BLOCKS

FEEDER MAIN CONNECTION NOTES:

- ALL PVC PIPE JOINTS TO BE RESTRAINED
- THRUST BLOCKS SHALL ACHIEVE A MINIMUM COMPRESSIVE STRENGTH OF 20MPa PRIOR TO PUTTING THE FEEDER MAIN INTO SERVICE
- CONTRACTOR TO CONFIRM GEOMETRY & LAYOUT OF TIE-IN PIPING & FITTINGS PRIOR TO ASSEMBLY/INSTALLATION & CONSTRUCTION OF THE CONCRETE THRUST BLOCKS

COORDINATE TABLE

POINT NUMBER	NORTHING	EASTING
1 - S CONNECTION	5523566.705	631069.184
2 - 45° BEND	5523570.642	631069.304
3 - 45° BEND	5523574.761	631065.429
4 - BEGIN CASING	5523576.177	631065.472
5 - END CASING	5523621.411	631066.852
6 - 50° BEND	5523622.253	631066.877
7 - 50° BEND	5523625.438	631070.967
8 - N CONNECTION	5523630.239	631071.123
9 - 6" AIR RELEASE CHAMBER	5523566.405	631069.175
10 - 500 BLOW-OFF VALVE	5523567.004	631069.194

WARNING

IF POWER EQUIPMENT OR EXPLOSIVES ARE TO BE USED FOR EXCAVATION ON THIS PROJECT THE CONTRACTOR MUST:

1. NOTIFY THE GAS COMPANY OF THE PROPOSED LOCATION OF EXCAVATION.
2. TAKE PRECAUTION TO AVOID DAMAGE TO GAS COMPANY INSTALLATIONS SEE PROVINCIAL REGULATION 210/72 FOR DETAILS.
3. OBTAIN EXCAVATION PERMITS PRIOR TO CONSTRUCTION.

METRIC

WHOLE NUMBERS INDICATE MILLIMETRES
DECIMALIZED NUMBERS INDICATE METRES

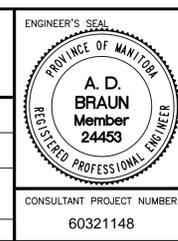


BID OPPORTUNITY NO. 473-2016

150 WM	WATER MAIN	150 WM	PIPE ABANDONMENTS	150 WM	WATER MAIN	150 WM
⊕	HYDRANT	⊕	SURVEY BAR	⊕	HYDRANT	⊕
⊕	VALVE	⊕	CURB STOP	⊕	VALVE	⊕
300 LDS	LAND DRAINAGE SEWER	300 LDS	REDUCER	300 LDS	LAND DRAINAGE SEWER	300 LDS
250 WWS	WASTE WATER SEWER	250 WWS	COUPLING	250 WWS	WASTE WATER SEWER	250 WWS
---	SEWER SERVICE PIPE	---	ANODE	---	PAVEMENT CROWN	---
---	DRAINAGE CONNECTION PIPE	---	HYDRO	---	N/W PROPERTY LINE	---
○	MANHOLE	○	MTS	○	S/E PROPERTY LINE	○
□	CATCH BASIN	□	GAS	□	N/W GUTTER	□
△	CURB INLET	△	TESTHOLE	△	S/E GUTTER	△
▭	CULVERT	▭	LAMP STANDARD	▭		▭
---	EXISTING	---	LEGEND - PLAN	---	LEGEND - PROFILE	---
---	NEW	---	LEGEND - PLAN	---	LEGEND - PROFILE	---

UNDERGROUND STRUCTURES		B.M. ELEV.
SUPV. U/G STRUCTURES	DATE	
LOCATION OF UNDERGROUND STRUCTURES AS SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE BUT NO GUARANTEE IS GIVEN THAT ALL EXISTING UTILITIES ARE SHOWN OR THAT THE GIVEN LOCATIONS ARE EXACT. CONFIRMATION OF EXISTENCE AND EXACT LOCATION OF ALL SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION.		
1	ISSUED FOR ADDENDUM 5	17/03/02
0	ISSUED FOR TENDER	17/01/09
NO.	REVISIONS	DATE

AECOM	
DESIGNED BY	ADB
CHECKED BY	
DRAWN BY	WJd
APPROVED BY	
HOR. SCALE	AS NOTED
VERTICAL	AS NOTED
RELEASED FOR CONSTRUCTION	
CONSULTANT PROJECT NUMBER	60321148



THE CITY OF WINNIPEG PUBLIC WORKS DEPARTMENT	
WAVERLEY STREET UNDERPASS AT CN MILE 3.89 RIVERS SUB CONTRACT 2: UNDERPASS STRUCTURE, RAILWORKS, ROADWORKS, LAND DRAINAGE SEWER, PUMPING STATION AND LANDSCAPING WORKS	CITY DRAWING NUMBER U239-2016-C2-CU-029
EXISTING MIDTOWN FEEDER MAIN RAIL CROSSING FM OFF-LINE REPLACEMENT DETAILS 1	SHEET 29 OF 41
	CONSULTANT DRAWING NUMBER C2-CU-029

PA:60321148-900-Work\9100-DD CAD-200-SHEETS\Municipal\63353-C2-CU-Midtown FM Off-line Replacement.dwg