

**Location R**

1. After the conduit from Location Q passes over the black 305 mm, route the conduit 90 degrees turn as it passes the 254 mm (10 inch) insulated pipe. Support the conduit before the turn with a new channel suspended from the tunnel ceiling.

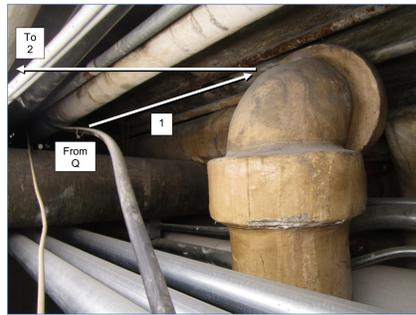


Figure 22 - Location R, bend in conduit at tunnel intersection

2. After the 90 degree turn, run the conduit approximately 914 mm (36 inches) horizontal. Mount the conduit to new channel anchored to the concrete tunnel wall.

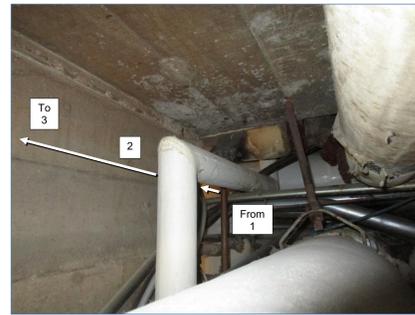


Figure 23 - Location R, conduit mounted to wall after 90 degree turn at tunnel intersection

3. After the 914 mm section of horizontal conduit, route the conduit down the wall approximately 914 mm. Mount the conduit to new channel anchored to the tunnel wall. Offsets may be required to bridge over existing conduits mounted directly on the wall.
4. Route the conduit 90 degrees and then continue to run the conduit horizontally down the tunnel at 356 mm (14 inches) above floor level. Install the conduit on existing channels mounted on the tunnel wall. Install a new junction box (JB-N7) between Location R and Location S as shown on the drawings.



Figure 24 - Location R, jog in conduit down to existing channel

**Location S**

1. When the conduit reaches a tunnel intersection, install two 90 degree turns to transition from the higher tunnel to lower tunnel. Install the new conduit alongside an existing 50 mm conduit and mount the conduit to existing channels.

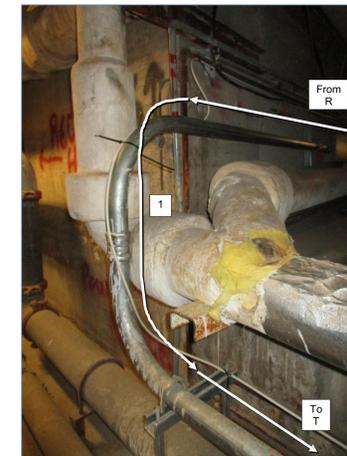


Figure 25 - Location S, bends at tunnel intersection

**Location T**

1. Route the conduit from Location S alongside the existing 50 mm conduit for a short distance and mount it to existing horizontal channels. When the tunnel elevation drops, route the new conduit under the existing conduit and then continue to follow beneath the existing conduit.
2. From this point forward, mount the new conduit to existing vertical channels and under the existing conduit.

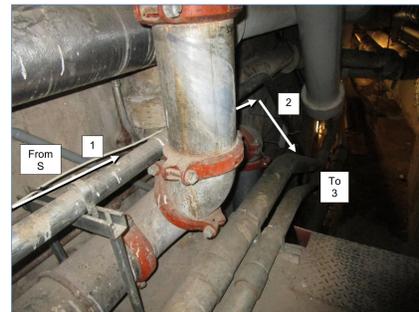


Figure 26 - Location T, transition from existing horizontal to existing vertical mounting channels

3. As the conduit descends into the lower tunnel, angle it away from the existing 50 mm conduit in order to allow mounting to the existing vertical channel shown in Figure 27. Mount the conduit at 610 mm (24 inches) above floor level.

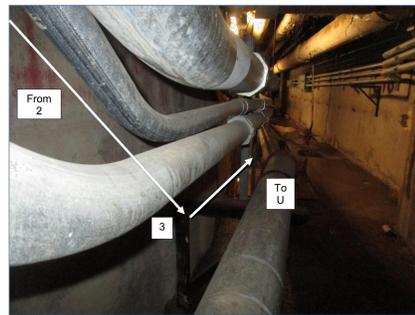


Figure 27 - Location T, transition along vertical channels

**Location U**

1. Run the conduit from Location T along the tunnel, mounted to existing channels until it reaches existing junction box JB-D. At this location, route the conduit up and connect into the bottom of JB-D. Pull the two new fibre optic cables through the existing 50 mm (2 inch) conduit from JB-D to the DDC panel located in the Powerhouse.

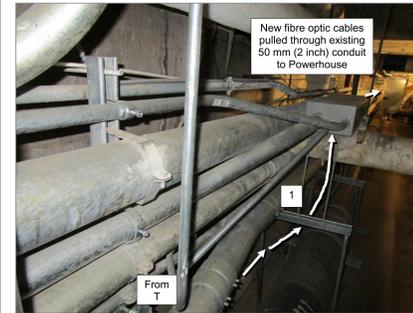


Figure 28 - Location U, conduit connecting into existing junction box JB-D

**Location V**

1. Install a new 50 mm conduit into the tunnels through an existing rectangular hole located in the floor of the Works Building mechanical room that has a tunnel access hatch. See Detail 1 on Sheet E108, for conduit path within the Works Building. After passing through the hole, immediately install a 90 degree turn and route the conduit across the tunnel ceiling and then down the wall. Mount the conduit to new channels anchored to the concrete ceiling and wall.

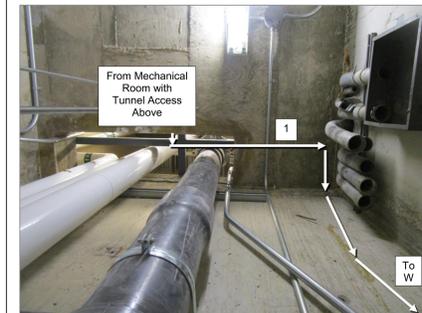


Figure 29 - Location V, conduit entering tunnels from Works Building (view from below)

**Location W**

1. Continue to route the conduit down the wall toward the lower tunnel, bending slightly toward the corner of the wall. Remove the wooden board that is attached to the wall to allow the conduit to follow the wall down. Mount the conduit to new channel anchored to the wall.

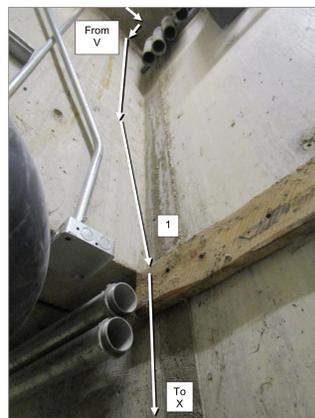


Figure 30 - Location W - conduit continues down wall into tunnel

**Location X**

1. Install a 90 degree turn in the conduit from Location W to turn into the lower tunnel at 1626 mm (64 inches) above floor level. Route the conduit across the wall and mount the conduit to existing vertical channels. At the tunnel intersection connect the conduit to the junction box (JB-N2) at Location B.

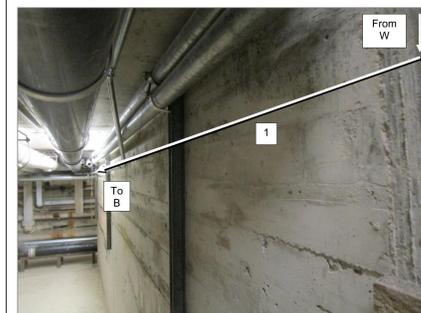


Figure 31 - Location X, conduit bends 90 degrees and follows vertical channels on wall



5		
4		
3		
2		
1		
0	ISSUED FOR TENDER	2017/07/21
Revision	Description	Date

**PUBLIC WORKS & GOVERNMENT SERVICES**  
100-167 LOMBARD AVENUE  
WINNIPEG, MB R3B 0T6

Project / Projet  
**CORRECTIONAL SERVICE CANADA  
STONY MOUNTAIN INSTITUTION  
STONY MOUNTAIN, MB**  
**UNIT 6  
MECHANICAL UPGRADE**

Designed by / Conçu par: **ZHA**  
Drawn by / Dessiné par: **JK**  
Approved by / Approuvé par: **KAS**  
PROJECT Manager / Administrateur de Projets / PRJCC: **TIM LODGE**

Drawing title / Titre du dessin: **VIEW LOCATIONS R TO X - CONDUIT ROUTE DETAILS**

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
<b>R.043722.003</b>	<b>E112</b>	<b>0</b>
	OF 13	