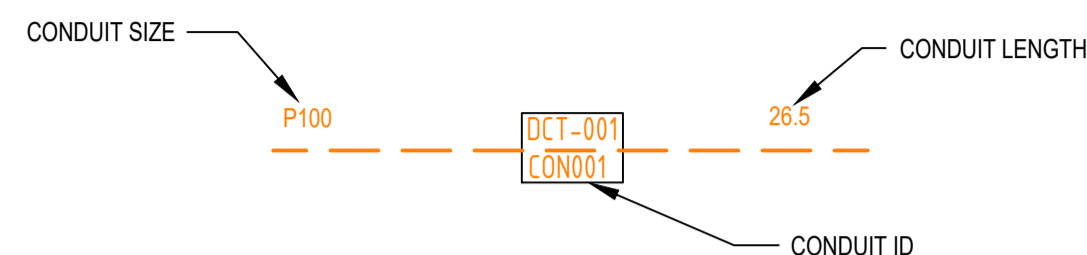


### CONDUIT CONFIGURATION

CONDUITS AND DUCTS ARE IN LAYER:  
 < L460 NBN Support - Underground >  
 AND TERMINOLOGY CATEGORISED INTO TWO GROUPS IN THE DRAWINGS AS PER BELOW:  
 1- DUCT USED WITH LOCAL NETWORK  
 2- CONDUIT USED WITH LEAD-IN DROPS  
 ATTRIBUTES ATTACHED TO CONDUITS ARE AS SHOWN



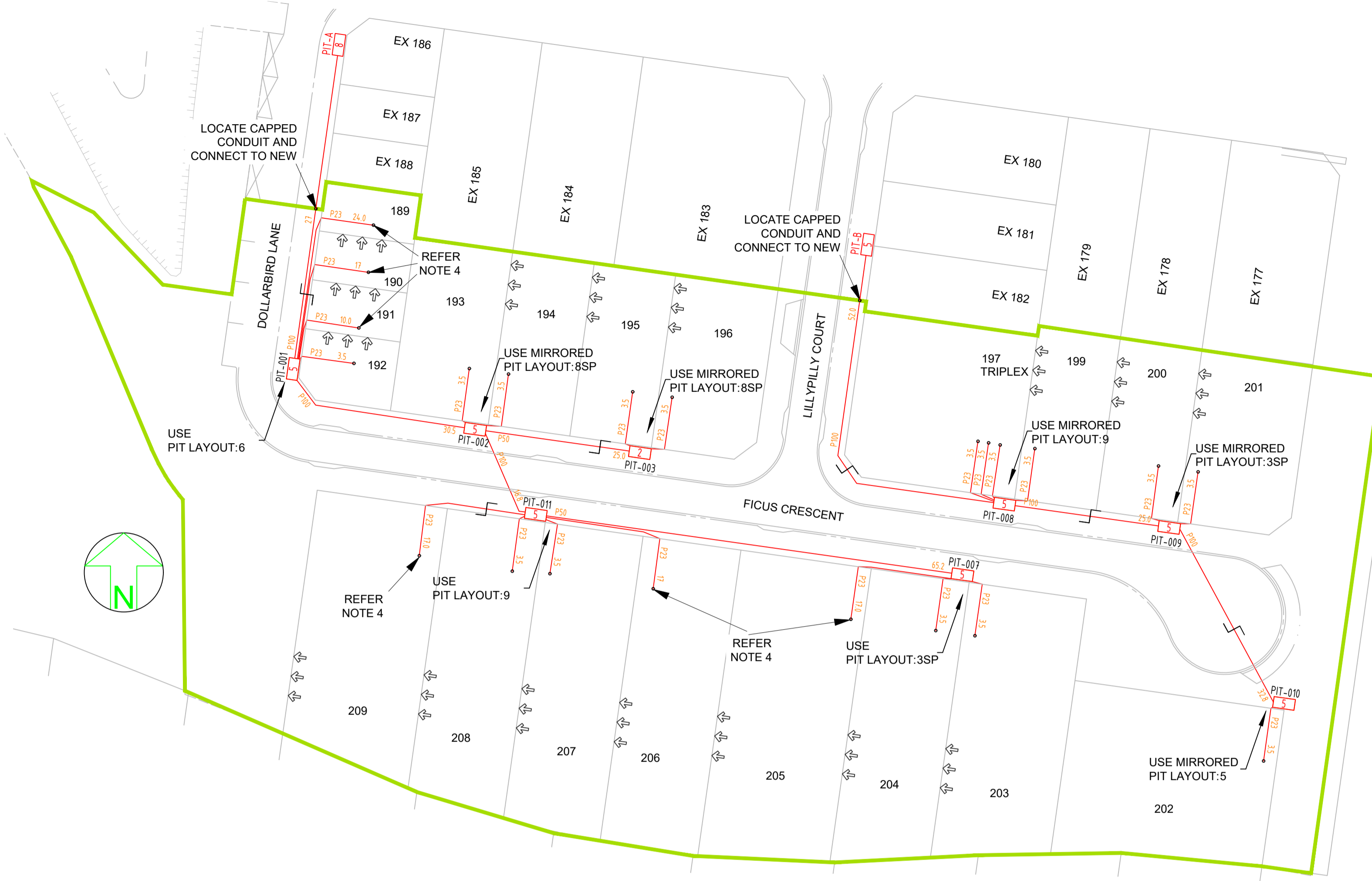
NOTE:  
 - P100 HAS AN INTERNAL DIAMETER OF 104.9 mm AND A MINIMUM WALL THICKNESS OF 4.5 mm  
 - P50 HAS AN INTERNAL DIAMETER OF 53 mm AND A MINIMUM WALL THICKNESS OF 3.1 mm  
 - P20 HAS AN INTERNAL DIAMETER OF 23.3 mm AND A MINIMUM WALL THICKNESS OF 1.4 mm

### LEGEND

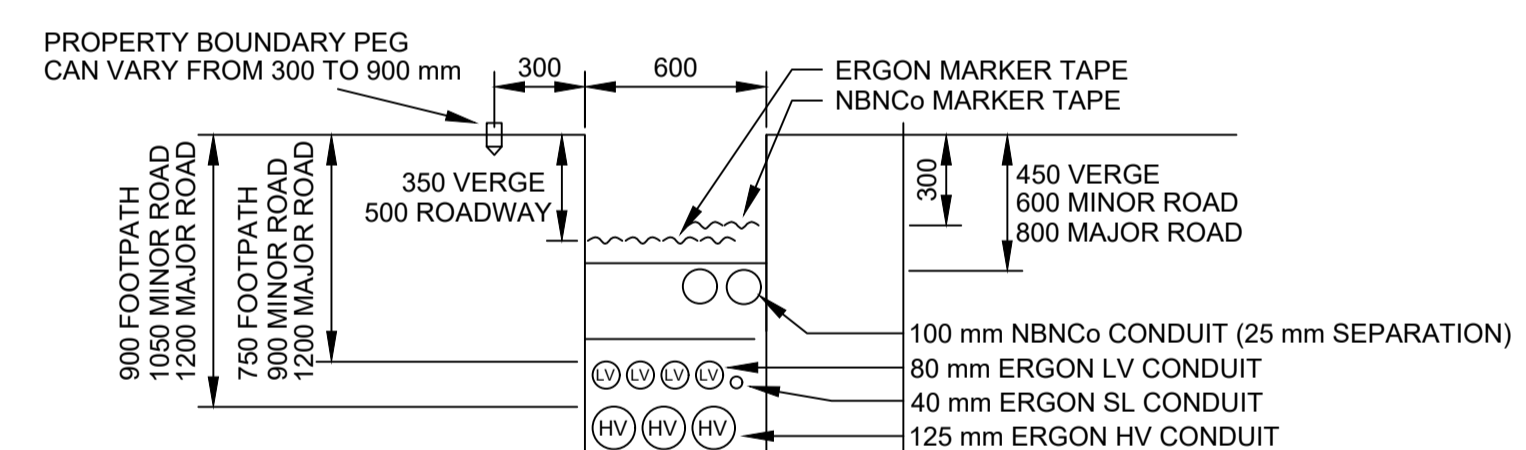
- TRANSFORMER / KIOSK / PAD MOUNT SUB-STATION / POLE MOUNT TRANSFORMER
- FIBRE DISTRIBUTION HUB / FDH CABINET
- ACO CABLEMATE TYPE 2 PLASTIC PIT OR SIMILAR
- ACO CABLEMATE TYPE 5 PLASTIC PIT OR SIMILAR
- ACO CABLEMATE TYPE 8 PLASTIC PIT OR SIMILAR
- ACO CABLEMATE TYPE 9 PLASTIC PIT OR SIMILAR
- EXISTING NBNCo PIT
- SHARED TRENCH
- ZERO LOT PROPERTY BOUNDARY
- END CAP CONDUIT WITH STATION NO.
- CAP SERVICE CONDUIT (P50/P20) P20=P23 mm NBNCo SERVICE CONDUIT
- LOCAL CONDUIT (P100/P50)
- EXISTING CONDUIT
- NBNCo STAGE BOUNDARY
- NBNCo LNC BOUNDARY

### NOTE:

- PITS TO BE LOCATED CLEAR OF THE ERGON PILLAR EXCLUSION ZONE.
- REFER TO NBN Co DOCUMENT NO. NBN-TE-CTO-194 (DEPLOYMENT OF THE NBN Co CONDUIT AND PIT NETWORK - GUIDELINES FOR DEVELOPERS) FOR DETAILED SPECIFICATION.
- PITS TO INCLUDE LID GASKET TO PREVENT DIRT ENTRY AND SPREADER BARS TO PREVENT PIT BUCKLING DURING BACKFILL / GROUND COMPACTION. PIT LIDS TO BE EMBOSSED WITH "NBN" AND COMPLY AS PER CLAUSE 5.3.2 OF THE ABOVE NBN Co DOCUMENT.
- SERVICE CONDUITS TO EXTEND 1m INSIDE THE FRONT PROPERTY BOUNDARY. FOR DISTANCES FROM SIDE PROPERTY BOUNDARY, REFER APPLICABLE PIT LAYOUT DETAILS OR SERVICE CONDUIT DETAIL FOR BOUNDARIES WITHOUT NBN PIT. CONTRACTORS TO TIE TELECOMMUNICATIONS CAUTION TAPE TO END OF SERVICE CONDUITS AND EXTEND TO ABOVE GROUND LEVEL FOR FUTURE CONDUIT LOCATION.
- ALL CONDUITS TO ENTER AND EXIT AT NARROW ENDS OF PITS ONLY. LOCATE CONDUITS AS CENTRALLY IN PIT END WALLS AS POSSIBLE. CONDUITS SHALL NOT BE INSTALLED WITHIN 50 mm OF ANY CORNER OF THE PIT. MINIMUM SEPARATION BETWEEN CONDUITS TO BE 25 mm. INSTALL CONDUITS AND CONDUIT COLLARS (BUSHES) TO BE SQUARE AND FLUSH WITH THE PIT END WALL. REFER TO THE PIT END WALL DETAILS IN THIS DESIGN FOR ADDITIONAL REQUIREMENTS.
- MINIMUM COVER TO BE: 300 mm FOR SERVICE DROP CONDUITS, 450 mm IN VERGE, 600 mm UNDER LOCAL ROADS, AND 800 mm UNDER MAIN ROADS.
- CONDUITS ARE TO BE CLEANED AND PROVEN USING A MANDREL. AFTER TESTING INSTALL A SUITABLE DRAW ROPE TO ALL CONDUITS AND CAP CONDUIT ENDS. SEAL CONDUITS AT PITS TO PREVENT ENTRY OF DUST AND MOISTURE. SERVICE CONDUIT DRAW ROPES TO BE ADDITIONALLY FITTED WITH A PLASTIC LABEL AT PIT END, IDENTIFYING LOT NUMBER AND DISTANCE / DIRECTION FROM BOUNDARY.
- INSTALL NON CONDUCTIVE (METAL FREE) MARKER TAPE ABOVE ALL NBN Co CONDUITS, 300 mm BELOW FINISHED GROUND LEVEL. INSTALL METALLIC KERB MARKERS AT ROAD CROSSINGS.
- REFER TO ERGON ENERGY STANDARD DRAWINGS 5228 AND 5168 SHEETS 1 TO 3 FOR SHARED TRENCH CROSS SECTIONS.
- GRADE TOP OF PIT TO MATCH VERGE / FOOTPATH.
- THERE ARE A TOTAL OF 22 RESIDENTIAL DWELLINGS OVER 20 LOTS, MADE UP OF 19 SINGLE AND 1 TRIPLEX UNITS.
- ALL OF THE STAGE IS TO BE FED FROM EXISTING FDH INSTALLED IN STAGE 5C. REFER TO NBN Co PROJECT NO. AYCA-LCF3F FOR DETAILS..
- WHERE REQUIRED, SUPPLY AND INSTALL SERVICE AND ROAD CROSSING CONDUITS SHOWN IN THE PIT LAYOUTS.
- WHERE CONDUIT BURIAL DEPTH IS LESS THAN THAT SPECIFIED IN THE NBN Co DEPLOYMENT OF CONDUIT AND PIT NETWORK GUIDELINES, SUPPLY AND INSTALL CONCRETE COVER (FOR VERGE AND FOOTPATH) / CONCRETE ENCASUREMENT (FOR ROADWAYS) ENSURE THAT MINIMUM SEPARATION TO ALL OTHER SERVICES ARE MAINTAINED.
- WHERE SPECIFIED ON THE SITE PLAN, NBN Co CONDUIT TO BE INSTALLED UNDERNEATH STORM WATER. REFER TO THE NBN Co DEPLOYMENT OF CONDUIT AND PIT NETWORK GUIDELINES FOR THE MINIMUM CLEARANCES REQUIRED.
- SUPPLY AND INSTALL ADDITIONAL DEVIATING CONDUIT BENDS TO ACHIEVE THE INCREASED / DECREASED BURIAL DEPTH REQUIRED TO AVOID CLASH WITH OTHER SERVICES.
- CONTRACTOR TO ENSURE CORRECT CLEARANCE BETWEEN NBNCo ASSETS AND CIVIL SERVICES (WATER, SEWER, & STORMWATER) AS PER MRC POLICY 063 & 15.05.

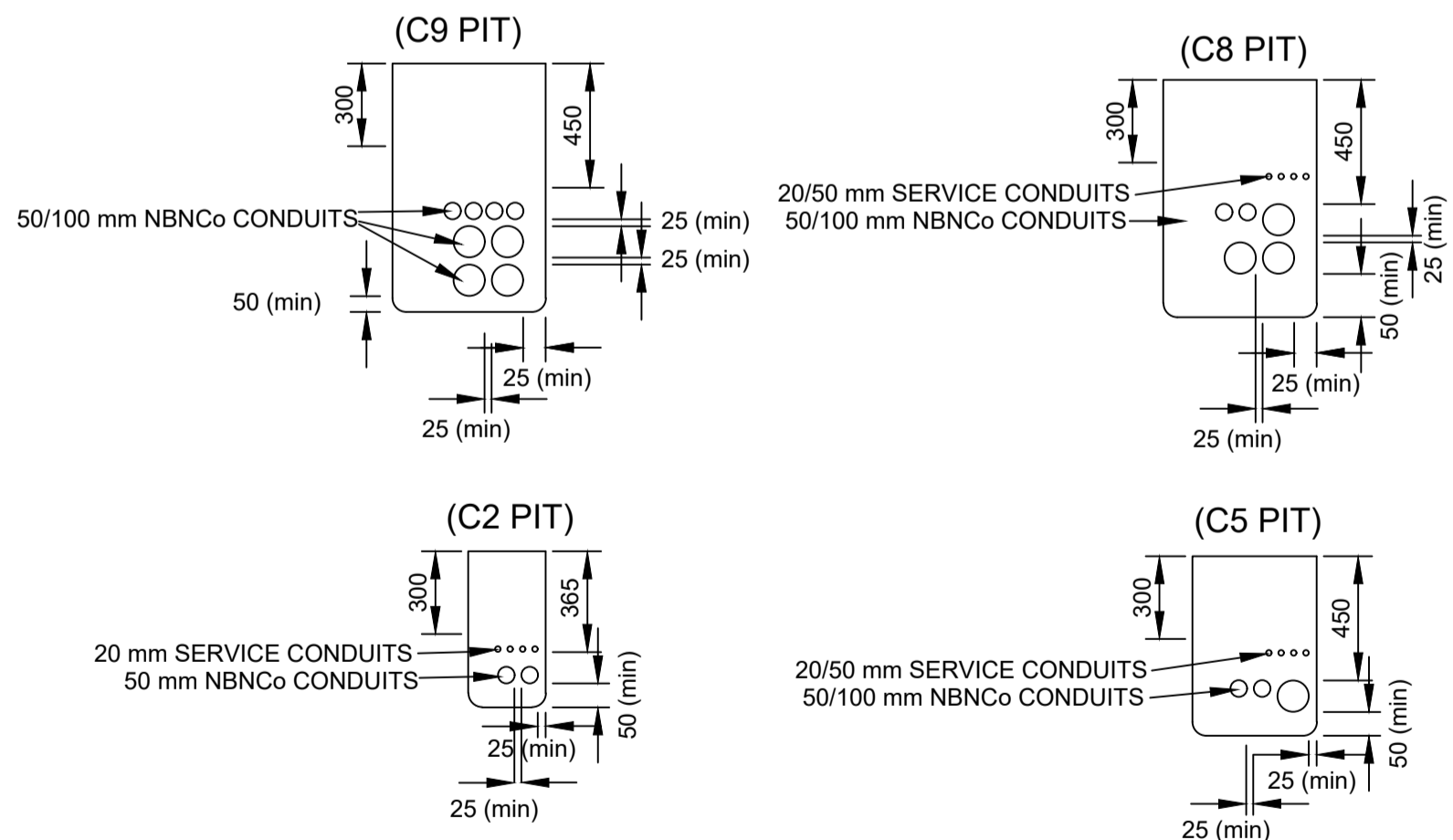


LAYOUT PLAN  
SCALE 1:500 @ A1



STANDARD TRENCH SECTION (MK)  
SCALE 1:25 @ A1

SEPARATION FROM ERGON CONDUITS		
ERGON CONDUIT TYPE	PARALLEL SEPARATION (mm)	CROSSING SEPARATION (mm)
LV/SL	100	100
HV	300	100



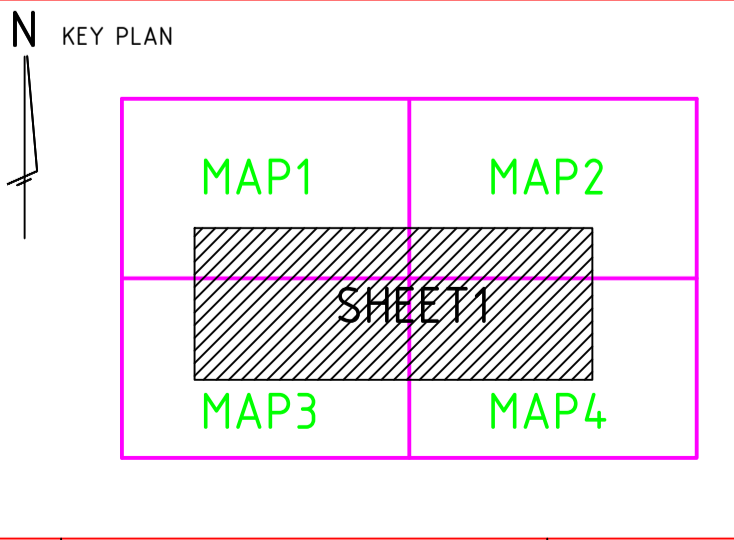
TYPICAL PIT END WALL DETAILS  
SCALE 1:25 @ A1

NBN Co PIT SIZES							
PIT TYPE	NAME	NOMINAL EXTERNAL DIMENSIONS (mm)			MINIMUM INTERNAL DIMENSIONS (mm)		
		LENGTH	WIDTH	DEPTH	LENGTH	WIDTH	DEPTH
SERVICE DROP ACCESS PIT / BOUNDARY PIT (MAXIMUM 50 mm CONDUIT ENTRY)	TYPE 2	650	280	565	490	150	500
BOUNDARY PIT / LOCAL NETWORK PIT	TYPE 5	700	450	650	510	290	540
LOCAL NETWORK CONNECTION PIT / DISTRIBUTION PIT	TYPE 8	1360	555	860	1130	390	820
FDH PIT	TYPE 9	2000	555	900	1820	370	840

**\*\*ATTENTION\*\***  
**CONSTRUCTORS DO NOT**  
 change or alter job  
 specifications unless first  
 checking with designer.

REV	DATE	DRAFTER	DESCRIPTION	APPROVED
B	16/02/17	HK	AS CONSTRUCTED	
A	10/04/14	LD	FOR CONSTRUCTION	
1	23/02/14	LD	FOR APPROVAL	

NBNCo APPROVAL RECORD:  
 SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_  
 DD \_\_\_\_\_  
 WD \_\_\_\_\_  
 AB \_\_\_\_\_  
 QUALITY RECORD :  
 NBNCo DISCLAIMER  
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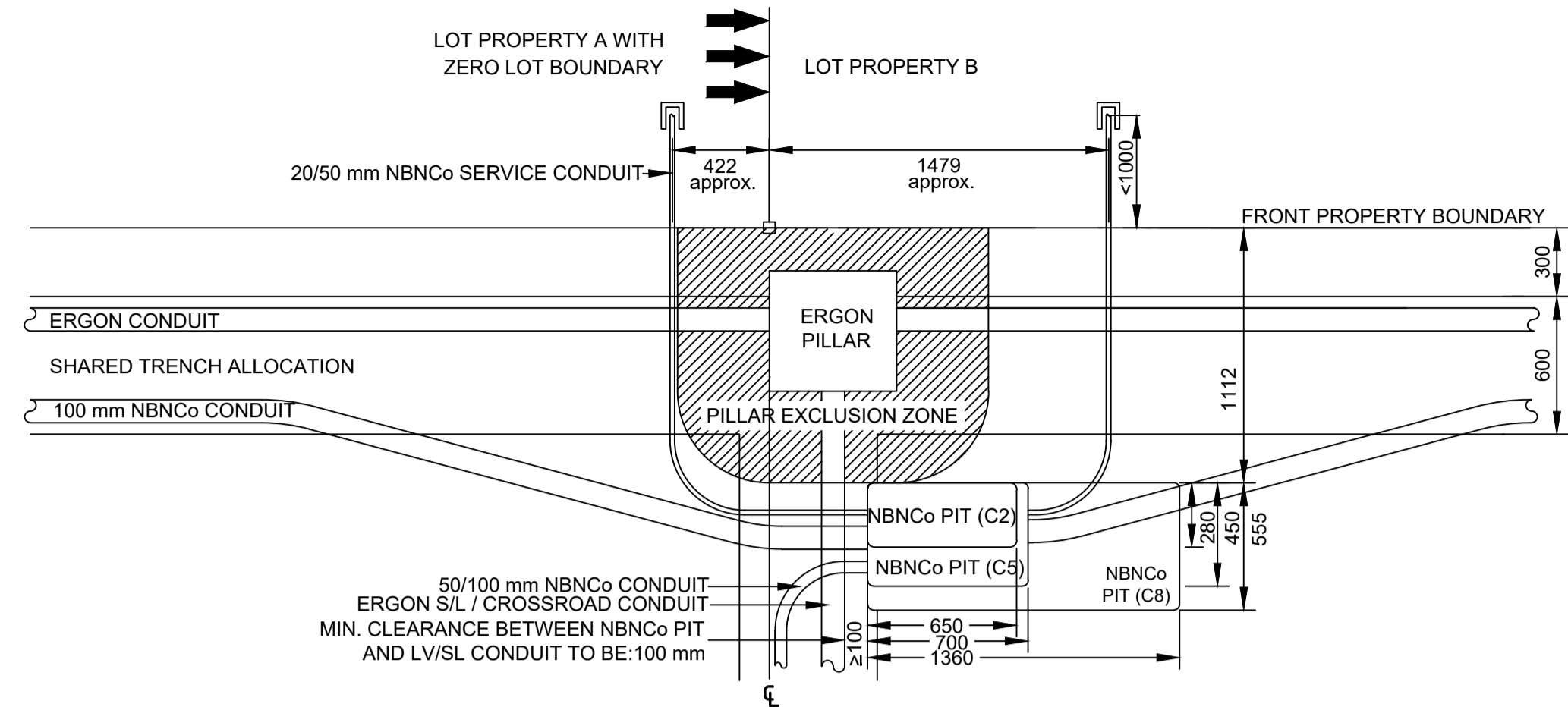
DRAWING TITLE:  
**WOODLANDS ESTATE STAGE 7**  
 NBNCo PIT AND PIPE DESIGN  
 SITE PLAN AND DETAILS

STATE: QLD REGION: MK  
 FSA: \_\_\_\_\_ FSAM: \_\_\_\_\_ FDA: \_\_\_\_\_  
 PROJECT No: AYCA-R20ZV  
 CADREF No: 2235-T01  
 SCALE AS SHOWN SHEET No. 1 OF 2 REV. B

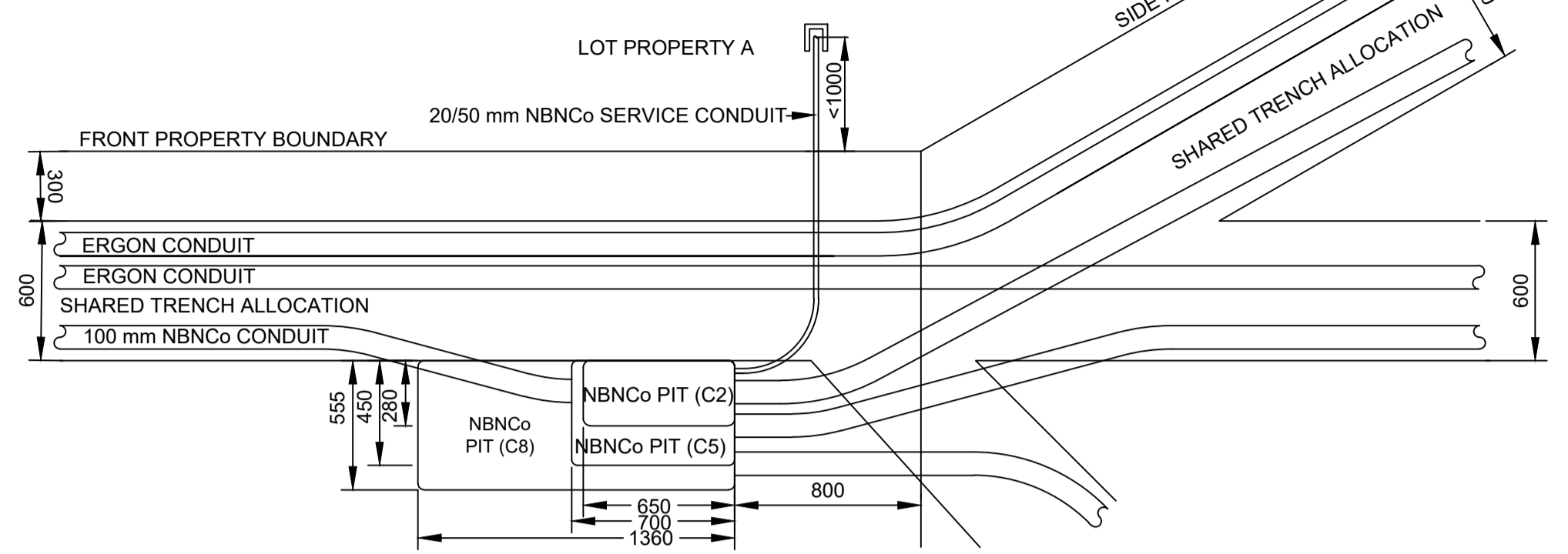
STAFF WORKING ON THIS ESTIMATE PLEASE NOTE:  
 The location of other authorities services which may affect this work have not been obtained by the estimator. Constructor to obtain service information before commencing.

**SAFETY FIRST**  
 SAFETY STARTS WITH YOU

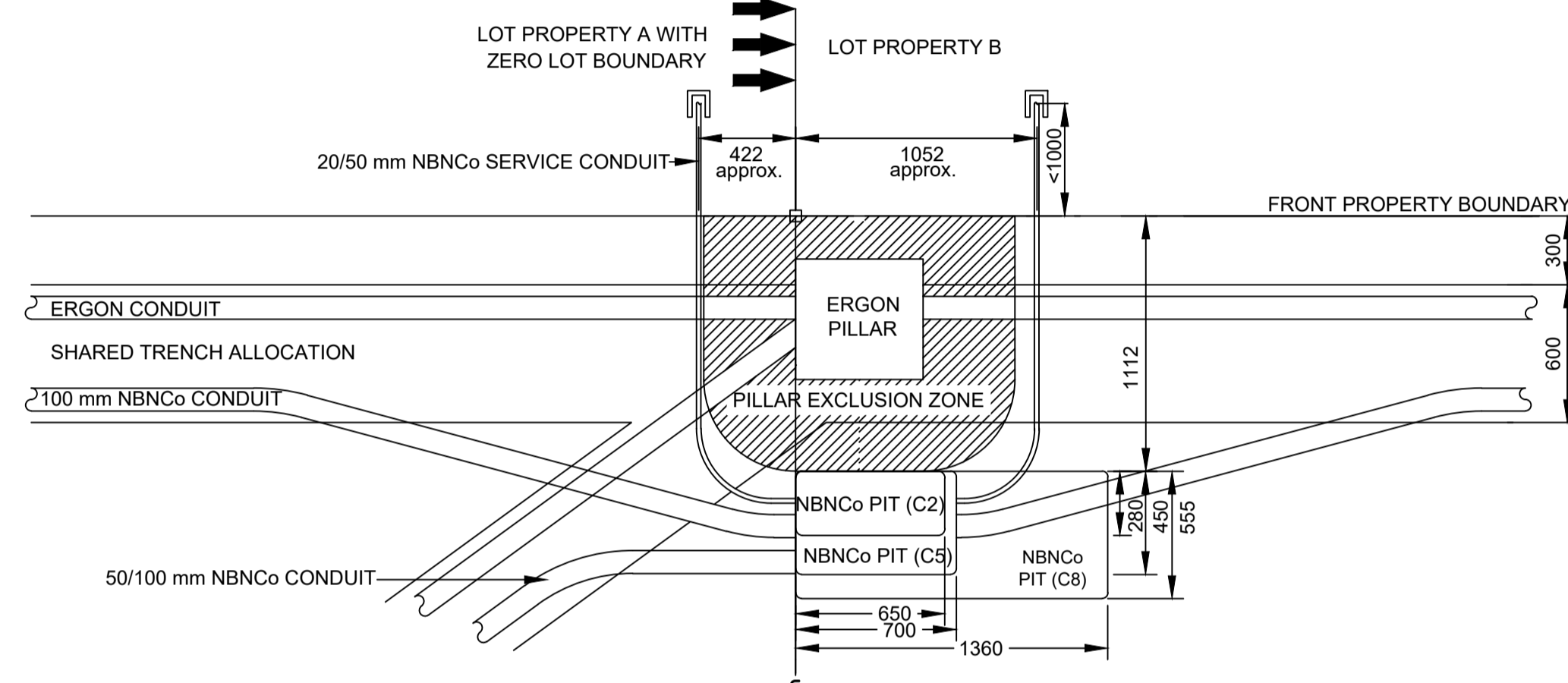
AS CONSTRUCTED



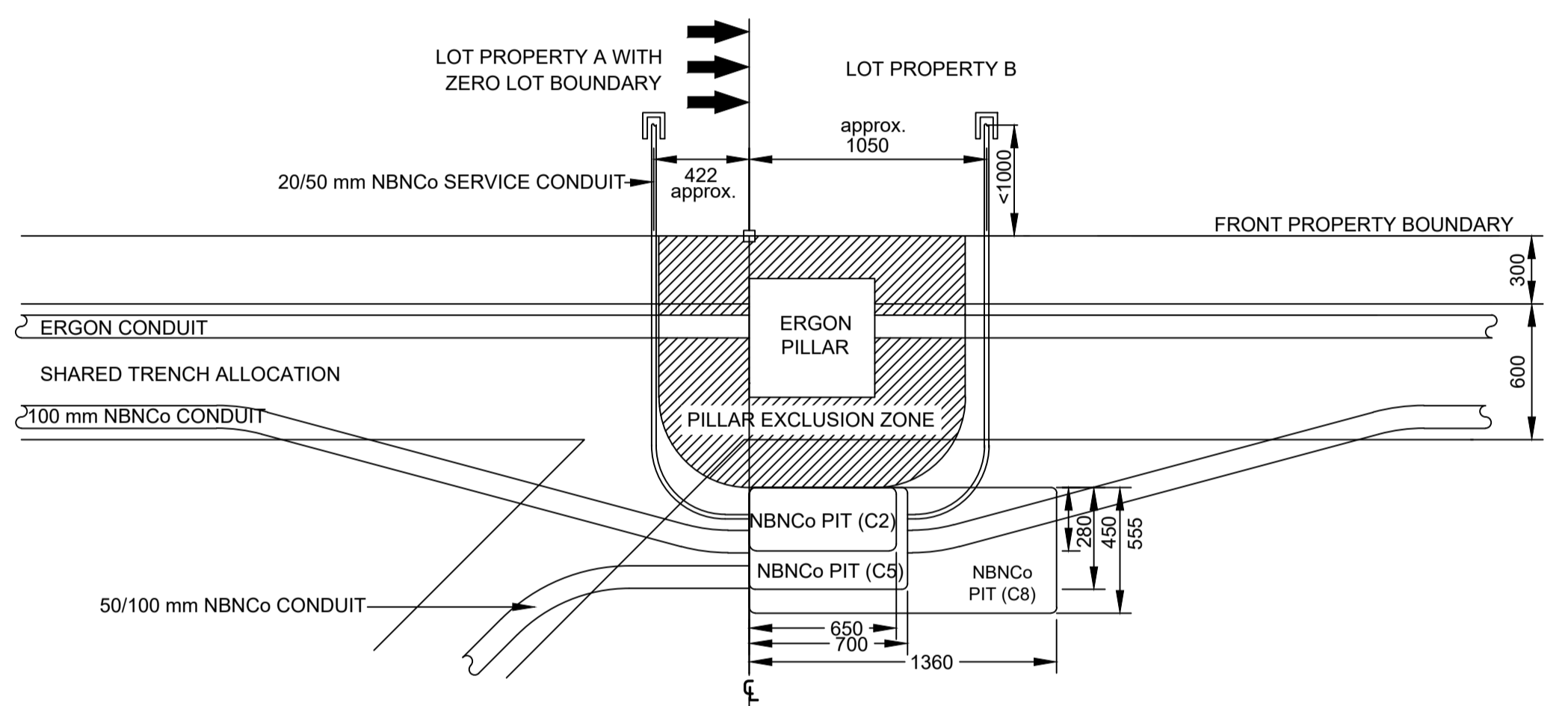
**PIT LAYOUT NO. 3SP - PIT OFFSET TO PILLAR WITH ERGON S/L OR CROSS ROAD CONDUIT @ 90°**  
 NOTE: - WHERE REQUIRED, MIRROR REVERSE  
 - ENSURE PIT TO BE CLEAR OF THE PILLAR EXCLUSION ZONE  
 - LOCATE PIT AS CLOSE AS POSSIBLE TO THE PROLONGATION OF SIDE PROPERTY BOUNDARY WHILST MAINTAINING A MINIMUM OF 100 mm CLEARANCE FROM ERGON CONDUIT  
 - WHERE REQUIRED, INSTALL SHOWN NBNC CONDUIT  
 (SCALE 1:25 @ A1)



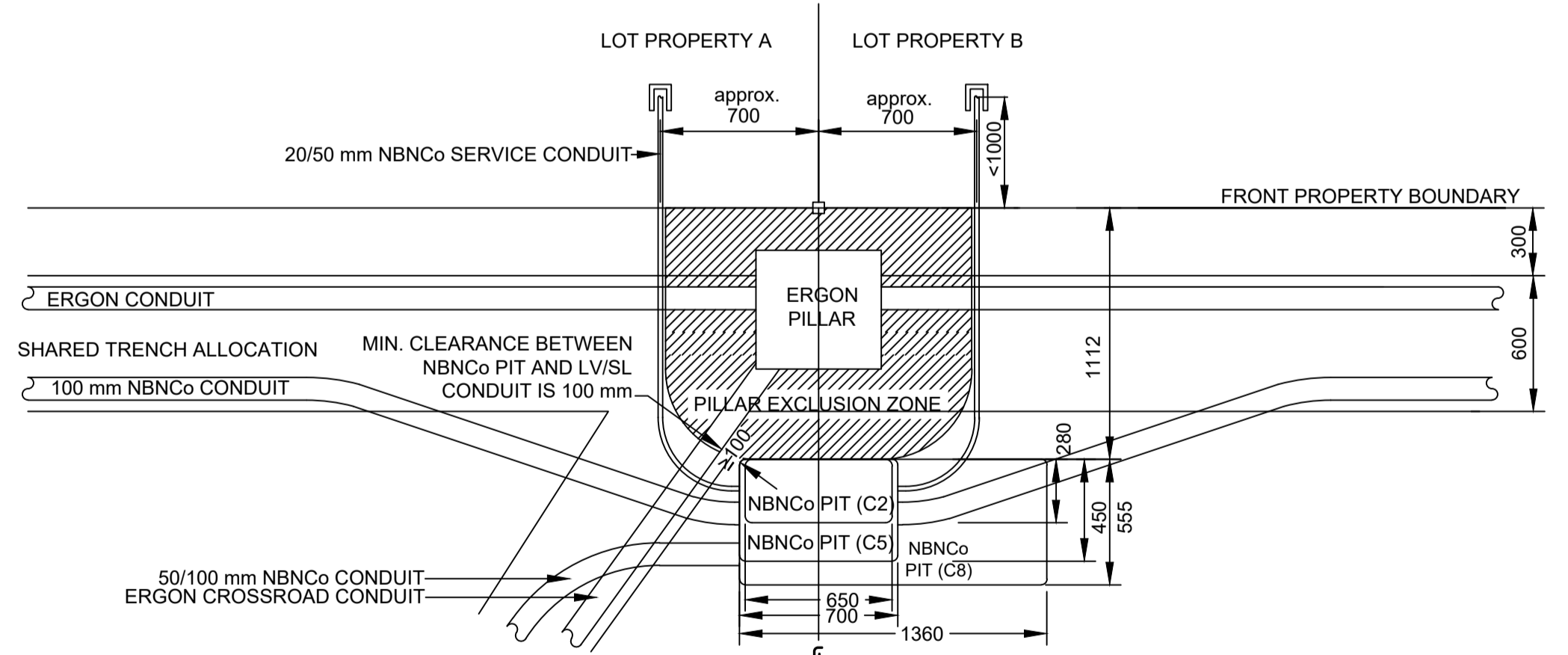
**PIT LAYOUT NO. 6 - PIT ON TRUNCATION WITH ANGLED SIDE PROPERTY BOUNDARY**  
 NOTE: - WHERE REQUIRED, MIRROR REVERSE  
 - LOCATE END OF PIT AS CLOSE AS POSSIBLE TO THE PROLONGATION OF THE PROPERTY TRUNCATION WHILST TAKING IN CONSIDERATION THE SIZE AND RADIUS OF BENDS TO BE USED  
 - WHERE REQUIRED, INSTALL SHOWN NBNC CONDUIT  
 (SCALE 1:25 @ A1)



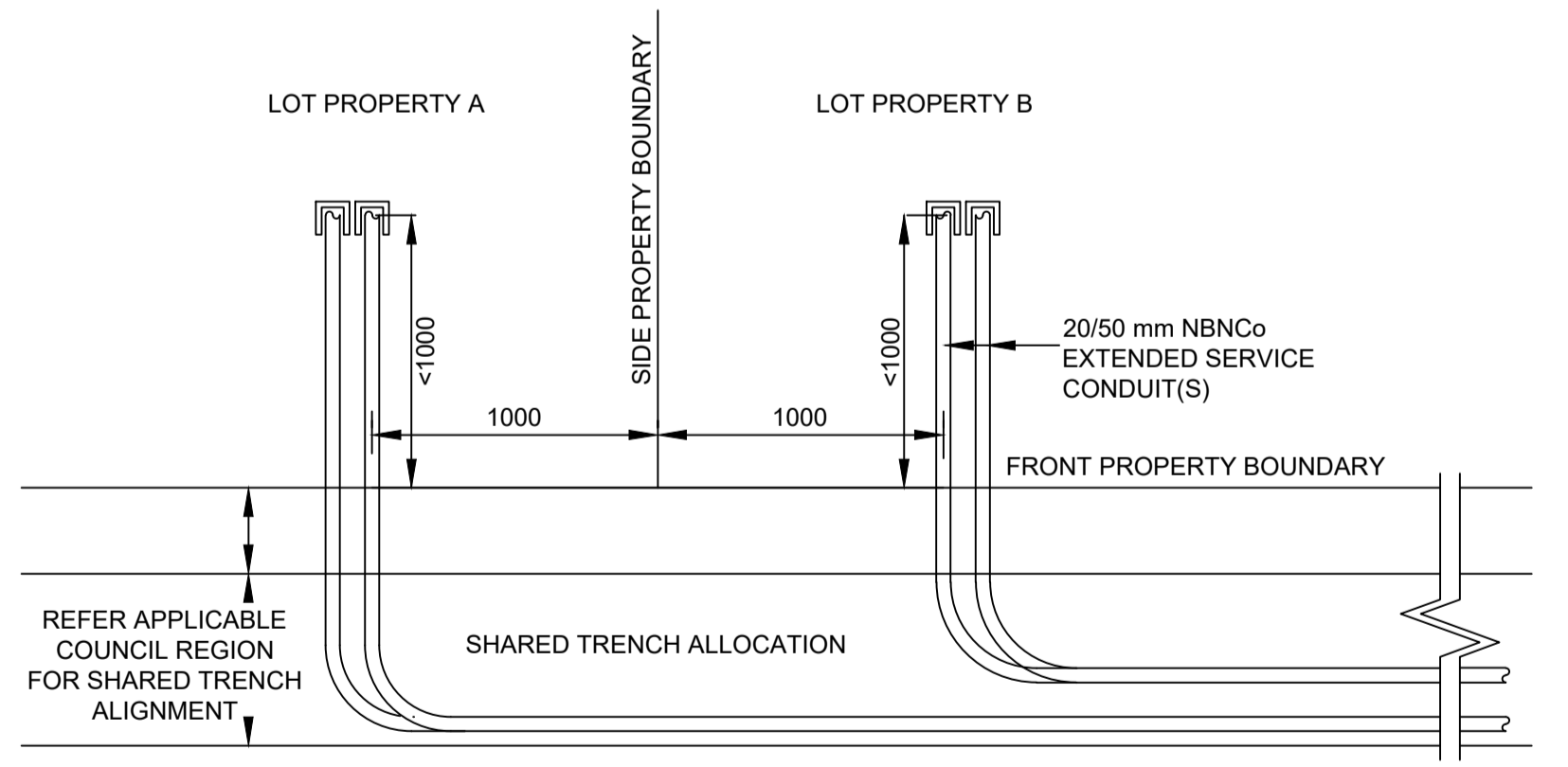
**PIT LAYOUT NO. 8SP - PIT IN FRONT OF PILLAR, NO ERGON CROSS ROAD CONDUIT (ZERO LOT BOUNDARY)**  
 NOTE: - WHERE REQUIRED, MIRROR REVERSE  
 - ENSURE PIT TO BE CLEAR OF THE PILLAR EXCLUSION ZONE  
 - ENSURE PIT TO BE CLEAR OF THE ZERO LOT BOUNDARY  
 - LOCATE END OF PIT MAXIMUM OF 277 mm OFFSET FROM PROLONGATION OF SIDE PROPERTY BOUNDARY TO ENSURE PIT DOES NOT EXTEND PAST PILLAR ON ZERO LOT BOUNDARY SIDE  
 - WHERE REQUIRED, INSTALL SHOWN NBNC CONDUIT  
 (SCALE 1:25 @ A1)



**PIT LAYOUT NO. 9 - PIT IN FRONT OF PILLAR, NO ERGON CROSS ROAD CONDUIT (ZERO LOT BOUNDARY)**  
 NOTE: - WHERE REQUIRED, MIRROR REVERSE  
 - ENSURE PIT TO BE CLEAR OF THE PILLAR EXCLUSION ZONE  
 - ENSURE PIT TO BE CLEAR OF THE ZERO LOT BOUNDARY  
 - WHERE REQUIRED, INSTALL SHOWN NBNC CONDUIT  
 (SCALE 1:25 @ A1)



**PIT LAYOUT NO. 5 - PIT OFFSET TO PILLAR, ANGLED ERGON CROSS ROAD CONDUIT LESS THAN 90°**  
 NOTE: - WHERE REQUIRED, MIRROR REVERSE  
 - ENSURE PIT TO BE CLEAR OF THE PILLAR EXCLUSION ZONE  
 - LOCATE CENTER OF PIT AS CLOSE AS POSSIBLE TO THE PROLONGATION OF SIDE PROPERTY BOUNDARY WHILST MAINTAINING A MINIMUM OF 100 mm CLEARANCE FROM ERGON CROSS ROAD CONDUIT  
 - WHERE REQUIRED, INSTALL SHOWN NBNC CONDUIT  
 (SCALE 1:25 @ A1)



**SERVICE CONDUIT DETAIL FOR BOUNDARIES WITHOUT NBN PIT**  
 NOTE: - WHERE REQUIRED, MIRROR REVERSE  
 - REFER SITE PLAN FOR CORRECT SIZE AND BOUNDARY FOR SERVICE CONDUIT INSTALLATION.  
 - WHERE SPECIFIED IN SITE PLAN, INSTALL ADDITIONAL SERVICE CONDUIT(S).  
 (SCALE 1:25 @ A1)

AS CONSTRUCTED

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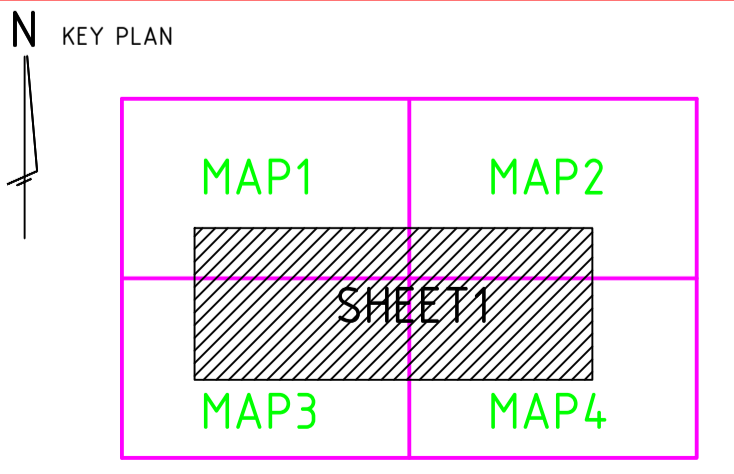
REV	DATE	DRAFTER	DESCRIPTION	APPROVED
B	16/02/17	HK	AS CONSTRUCTED	
A	10/04/14	LD	FOR CONSTRUCTION	
1	23/02/14	LD	FOR APPROVAL	

**NBNC APPROVAL RECORD:**

DD	WD	AB	SIGNATURE	DATE
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

**QUALITY RECORD:**

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**DRAWING TITLE:**  
 WOODLANDS ESTATE STAGE 7  
 NBNC PIT AND PIPE DESIGN  
 DETAILS

STATE: QLD	REGION: MK
FSA:	FSAM: FDA:
PROJECT No: AYCA-R20ZV	
CADREF No: 2235-T02	
SCALE AS SHOWN	SHEET No. 2 OF 2
REV. B	