

**STANDARD DESIGN NOTES:**

- THERE ARE A TOTAL OF 52 SINGLE RESIDENTIAL DWELLING LOTS.
- REFER TO SPA DRAWING 3391-E01 FOR COORDINATION WITH THE ELECTRICAL DESIGN.

**LEGEND**

PIT-ID 2	NBN Co PIT TYPE 2 PLASTIC PIT OR SIMILAR	ZERO LOT PROPERTY BOUNDARY
PIT-ID 5	NBN Co PIT TYPE 5 PLASTIC PIT OR SIMILAR	SHARED TRENCH
PIT-ID 6	NBN Co PIT TYPE 6 PLASTIC PIT OR SIMILAR	TRANSFORMER / KIOSK / PAD MOUNT SUB-STATION / POLE MOUNT TRANSFORMER
PIT-ID 8	NBN Co PIT TYPE 8 PLASTIC PIT OR SIMILAR	END CAP CONDUIT WITH STATION NO.
5	EXISTING TELSTRA PIT (2,3,4,5,6,7,8,9)	CAP SERVICE CONDUIT (P50/P20) P20=P23 mm NBNCo SERVICE CONDUIT
PIT-ID 8	EXISTING NBN Co PIT	LOCAL CONDUIT (P100/P50)
---	EXISTING CONDUIT	NBNCo STAGE BOUNDARY

**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

**STANDARD CONSTRUCTION NOTES:**

- REFER TO NBN Co DOCUMENT NO. NBN-TE-CTO-194 (DEPLOYMENT OF THE NBN Co CONDUIT AND PIT NETWORK - GUIDELINES FOR DEVELOPERS) FOR DETAILED CONSTRUCTION SPECIFICATION.
- MULTIPLE 15° CONDUIT BENDS TO BE USED TO SWING IN AND OUT OF THE STANDARD TRENCH ALIGNMENT AND ENTER THE NARROW ENDS OF THE PIT.
- 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. REFER EXTENDED SERVICE CONDUIT DETAIL FOR DISTANCES FROM DIVIDING PROPERTY BOUNDARY FOR BOUNDARIES WITHOUT 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.
- WHERE REQUIRED, SUPPLY AND INSTALL SERVICE AND ROAD CROSSING CONDUITS SHOWN IN THE SITE PLAN.
- 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 ENCASMENT (FOR ROADWAYS) ENSURE THAT MINIMUM SEPARATION TO ALL OTHER SERVICES ARE MAINTAINED.
- SUPPLY AND INSTALL ADDITIONAL DEVIATING CONDUIT BENDS TO ACHIEVE THE INCREASED / DECREASED BURIAL DEPTH REQUIRED TO AVOID CLASH WITH OTHER SERVICES.
- CONDUIT INSTALLED IN THIS STAGE. FIBRE TO BE RETICULATED IN FUTURE STAGE.
- WARNING: EXISTING SERVICES AND LIVE CABLES IN AREA. CONTRACTOR TO USE POT HOLING AND HYDRO-VAC EXCAVATION WHEN INSTALLING NEW CONDUITS.

**SDU Development Information**

Development Name: The Reserve (Kalynda Chase)	
Developer Company: Urbex Pty Ltd	
Development Address: BRUCE HIGHWAY, BOHLE PLAINS	
Authorised Rep: SPA Consulting Engineers (Qld) Pty Ltd Phone: 074.7283026 E-Mail: admin@spaconsulting.com.au	
nbn Reference Number: STG-W00018284.7	Stage Number: 13A
	Design Revision: B

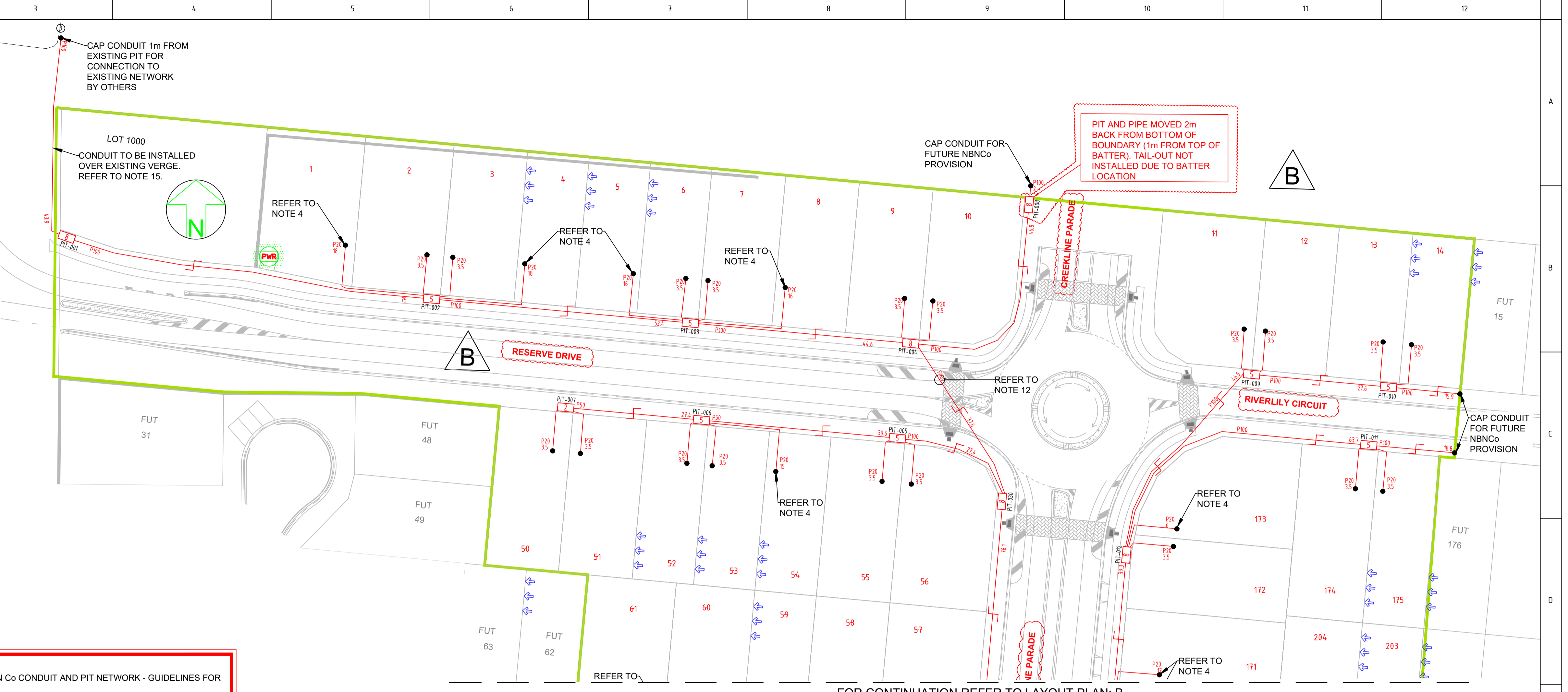
**BILL OF MATERIAL**

NO OF LOTS: 52

PITS		DUCTS		MTRS
SIZE	QTY	SIZE	QTY	
2	1	P100	39	1351.9
5	17	P50	2	67
6	0	P20	52	340
8	12			
9	0			

TOTAL NUMBER OF PITS: 30  
TOTAL NUMBER OF MANHOLES: 0  
TOTAL NUMBER OF CONDUITS: 93  
TOTAL LENGTH OF CONDUITS: 1758.9

LAYOUT PLAN: A  
SCALE 1:500 @ A1



FOR CONTINUATION REFER TO LAYOUT PLAN: B

AS-BUILT

SAFETY FIRST  
SAFETY STARTS WITH YOU

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.

ON COMPLETION, MARK UP THIS PRINT CLEARLY WITH ALL FINAL CHANGES AND RETURN TO PROJECT MANAGER

CHANGES: YES/NO

**CIVIL CONTRACTOR**

NAME: ANTHONY BURKE

SIGNATURE: ANTHONY BURKE

DATE: 24/03/2022



REV	DATE	DRAFTER	DESCRIPTION	APPROVED
B	31/03/2022	NJ	AS BUILT	
A	06/10/2021	CC	FOR CONSTRUCTION	
1	24/5/21	SW	FOR APPROVAL	NBN

**STRICTLY CONFIDENTIAL**

NBNCo APPROVAL RECORD:

SIGNATURE	DATE
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<input type="checkbox"/> WD	
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KEY PLAN

DRAWING TITLE:  
THE RESERVE (KALYNDIA CHASE) STAGE 13A  
NBNCo PIT AND PIPE DESIGN  
LAYOUT PLAN A

ENABLE#:

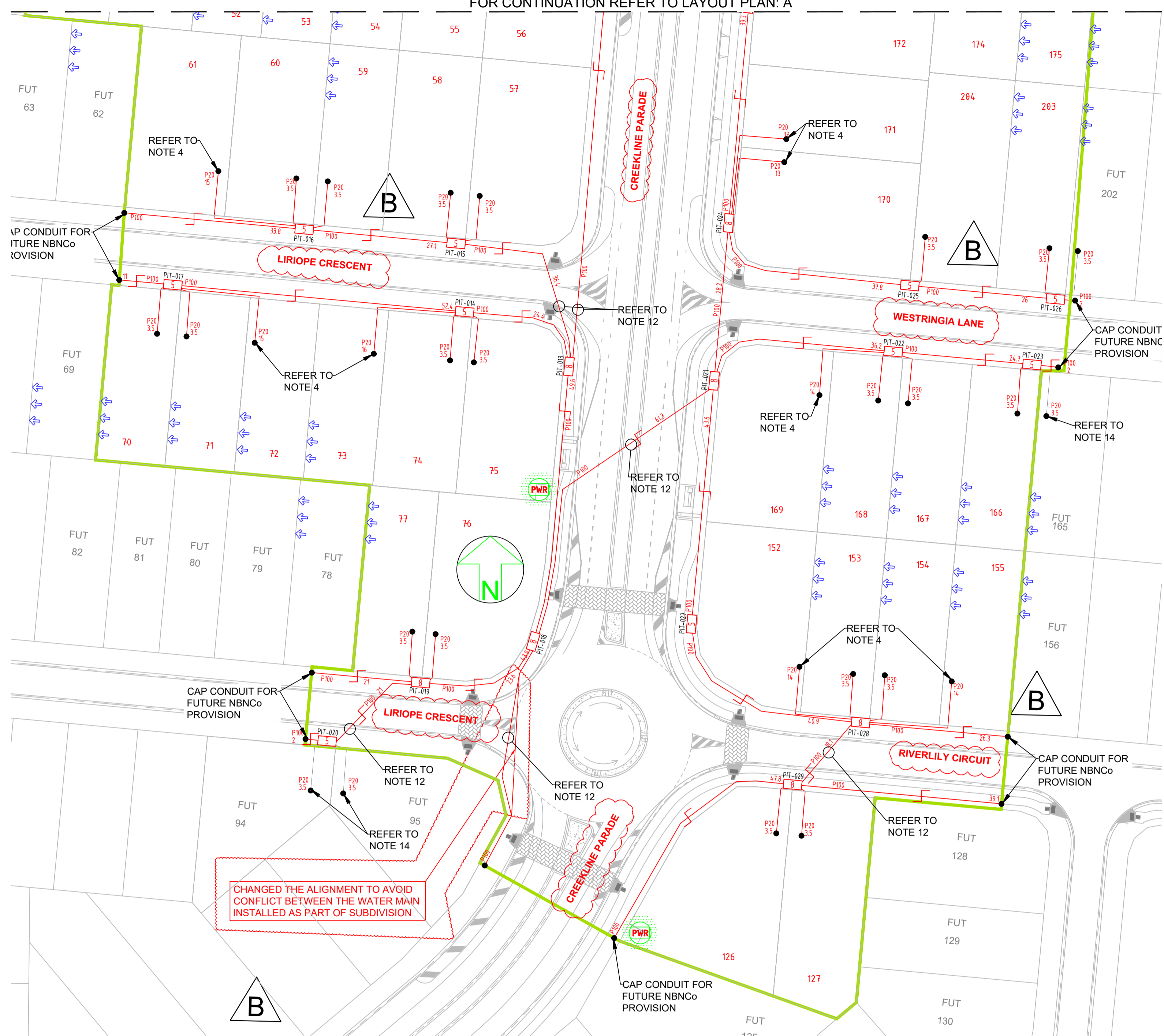
STATE: QLD REGION: NQ

PROJECT No: STG-W00018284.7

CADREF No: 3391-T01

SCALE AS SHOWN SHEET No. 1 OF 3 REV. B

FOR CONTINUATION REFER TO LAYOUT PLAN: A



LAYOUT PLAN: B  
SCALE 1:500 @ A1

**LEGEND**

PIT-ID 2	NBN Co PIT TYPE 2 PLASTIC PIT OR SIMILAR		ZERO LOT PROPERTY BOUNDARY
PIT-ID 5	NBN Co PIT TYPE 5 PLASTIC PIT OR SIMILAR		SHARED TRENCH
PIT-ID 6	NBN Co PIT TYPE 6 PLASTIC PIT OR SIMILAR		TRANSFORMER / KIOSK / PAD MOUNT SUB-STATION / POLE MOUNT TRANSFORMER
PIT-ID 8	NBN Co PIT TYPE 8 PLASTIC PIT OR SIMILAR		END CAP CONDUIT WITH STATION NO.
5	EXISTING TELSTRA PIT (2,3,4,5,6,7,8,9)		CAP SERVICE CONDUIT (P50/P20) P20=P23 mm NBN Co SERVICE CONDUIT
PIT-ID 8	EXISTING NBN Co PIT		LOCAL CONDUIT (P100/P50)
---	EXISTING CONDUIT		NBN Co STAGE BOUNDARY

**CONDUIT CONFIGURATION**

CONDUITS AND DUCTS ARE IN LAYER:  
<L480 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

CHANGED THE ALIGNMENT TO AVOID  
CONFLICT BETWEEN THE WATER MAIN  
INSTALLED AS PART OF SUBDIVISION

ON COMPLETION, MARK UP THIS PRINT  
CLEARLY WITH ALL FINAL CHANGES AND  
RETURN TO PROJECT MANAGER

CHANGES: YES/NO

CIVIL CONTRACTOR  
NAME: ANTHONY BURKE  
SIGNATURE: ANTHONY BURKE  
DATE: 24/03/2022

AS-BUILT

SAFETY FIRST  
SAFETY STARTS WITH YOU

STAFF WORKING ON THIS ESTIMATE PLEASE  
NOTE: The location of other authorities services  
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information before commencing.



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A	06/10/2021	CC	FOR CONSTRUCTION	
1	24/5/21	SW	FOR APPROVAL	NBN

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**nbn** Australia's broadband network

**spa** consulting engineers  
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THE Reserve  
From the developers of Kalymna Chase

DRAWING TITLE:  
THE RESERVE (KALYNDIA CHASE) STAGE 13A  
NBN Co PIT AND PIPE DESIGN  
LAYOUT PLAN

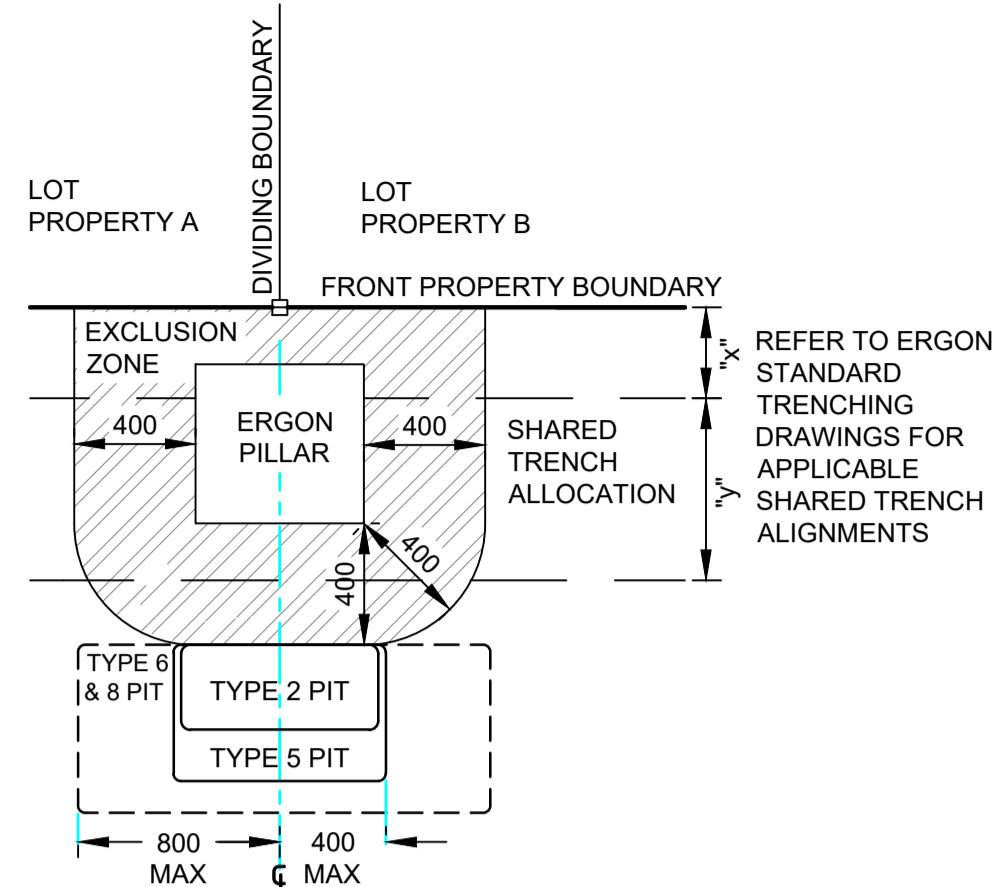
ENABLED:

STATE: QLD	REGION: NQ
PROJECT No: STG-W000182847	CADREF No: 3391-T02
SCALE AS SHOWN	SHEET No. 2 OF 3

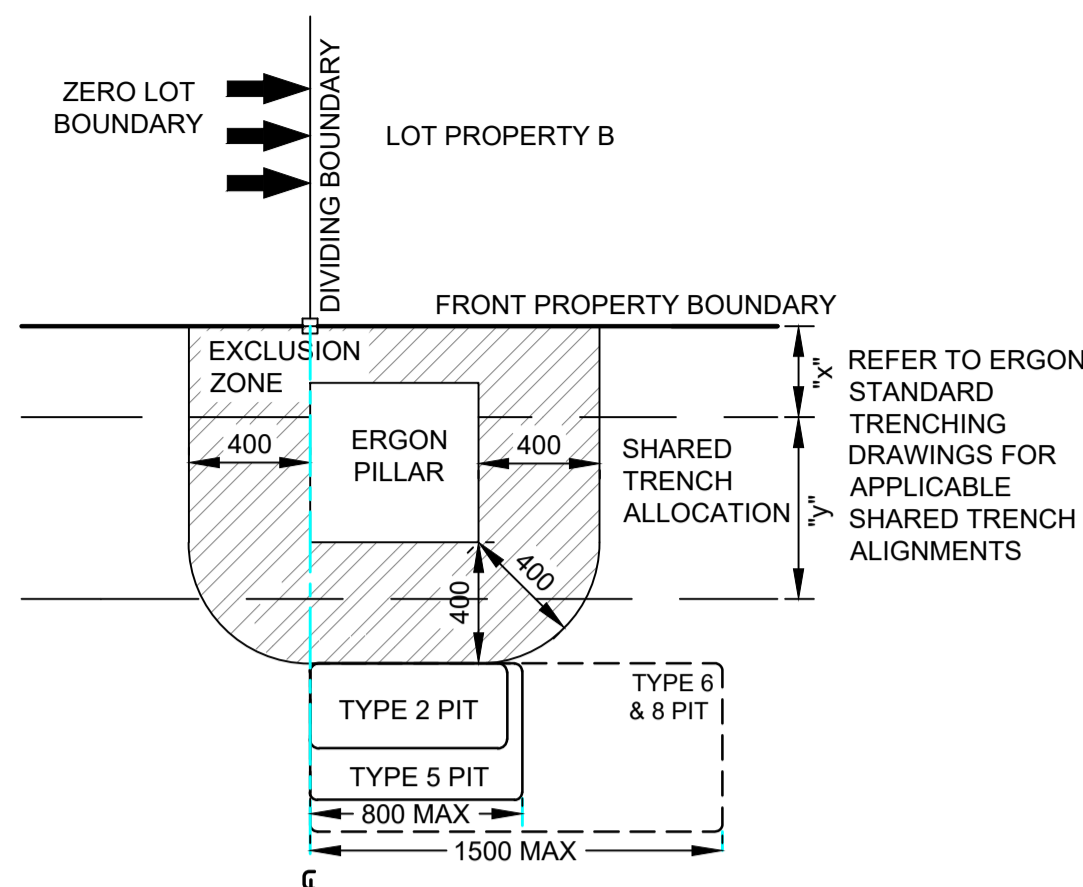
REV. B

**TYPICAL PIT DETAILS**

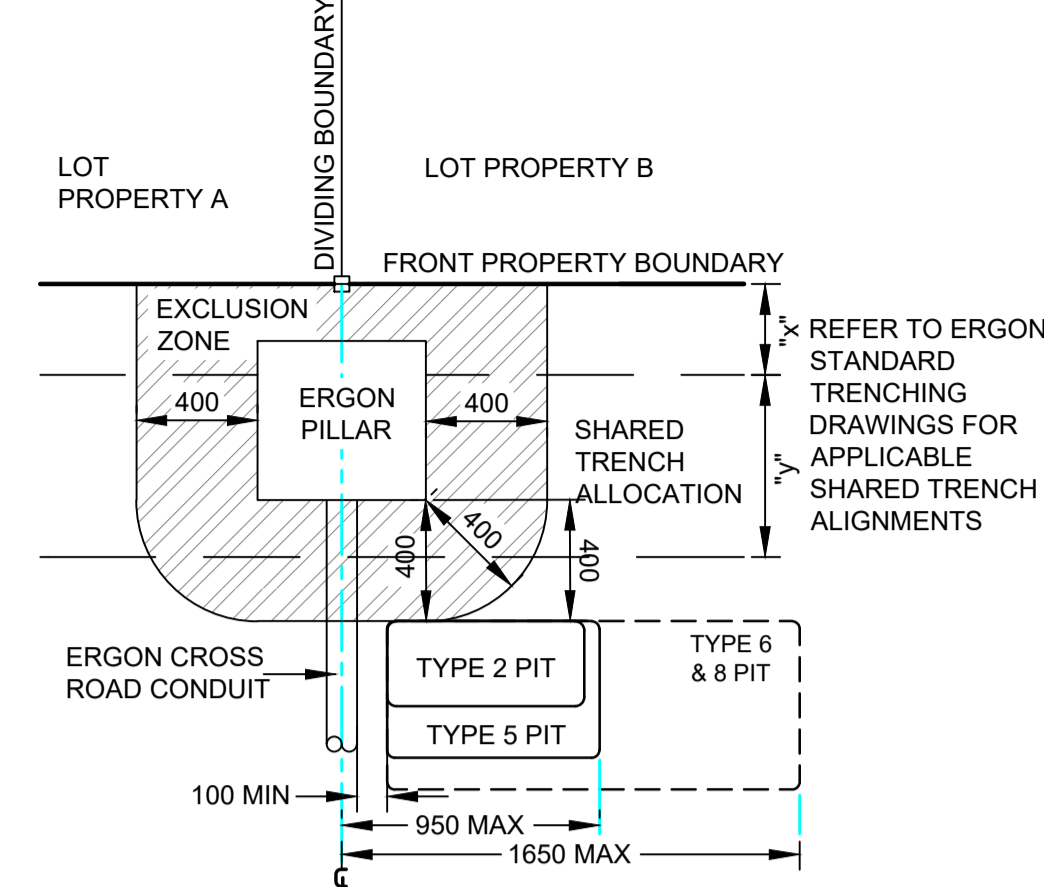
- NOTES:**
- THESE DETAILS REPRESENT TYPICAL PIT CONFIGURATIONS AND THE CONTRACTOR SHALL DETERMINE THE MOST SUITABLE DETAIL FOR EACH PARTICULAR APPLICATION, IGNORING REDUNDANT DETAILS.
  - PITS SHALL BE INSTALLED CLEAR OF DRIVEWAYS AND FUTURE DRIVEWAY LOCATIONS. COORDINATE FINAL LOCATIONS WITH CIVIL DRAWINGS.
  - ENSURE PITS ARE INSTALLED IN ACCORDANCE WITH NBN Co GUIDELINES AND THE FOLLOWING CLEARANCES:
    - A. 100 mm FROM LV / 300 mm FROM HV ELECTRICAL CONDUITS
    - B. 150 mm FROM WATER RETICULATION & 300mm FROM HIGH PRESSURE MAINS
    - C. 150 mm FROM SEWER RETICULATION & 300mm FROM MAINS
    - D. 150 mm FROM STORMWATER RETICULATION
    - E. 100mm FROM OTHER TELECOMMUNICATIONS CARRIERS
  - MIRROR CONFIGURATION WHERE APPROPRIATE



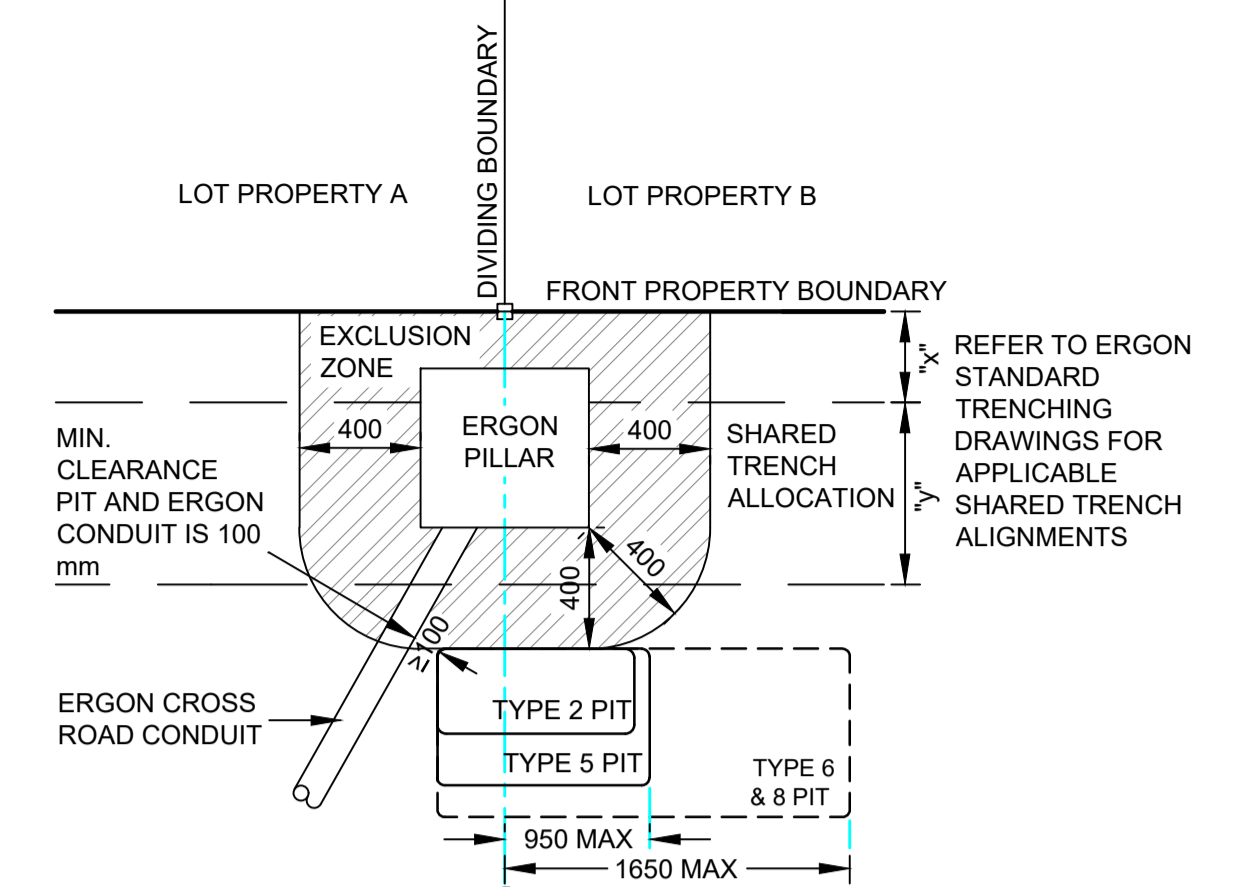
**TYPICAL PIT DETAIL 1**  
PIT CENTRAL TO THE BOUNDARY WITH AN ERGON PILLAR.  
- INSTALL CENTRE OF PIT IN LINE WITH PROLONGATION OF DIVIDING BOUNDARY.



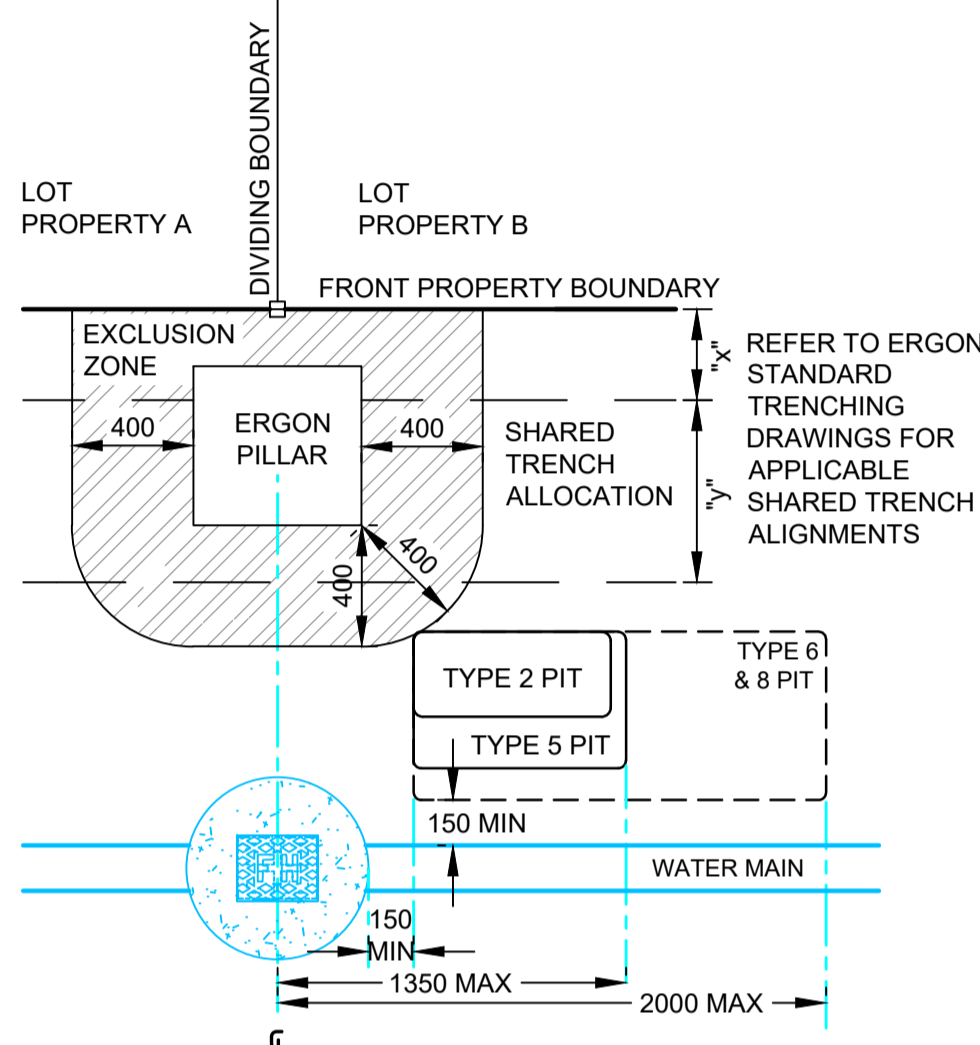
**TYPICAL PIT DETAIL 2**  
PIT OFFSET FROM BOUNDARY WITH AN ERGON PILLAR (ZERO LOT BOUNDARY).  
- ENSURE PIT TO BE CLEAR OF THE ZERO LOT BOUNDARY



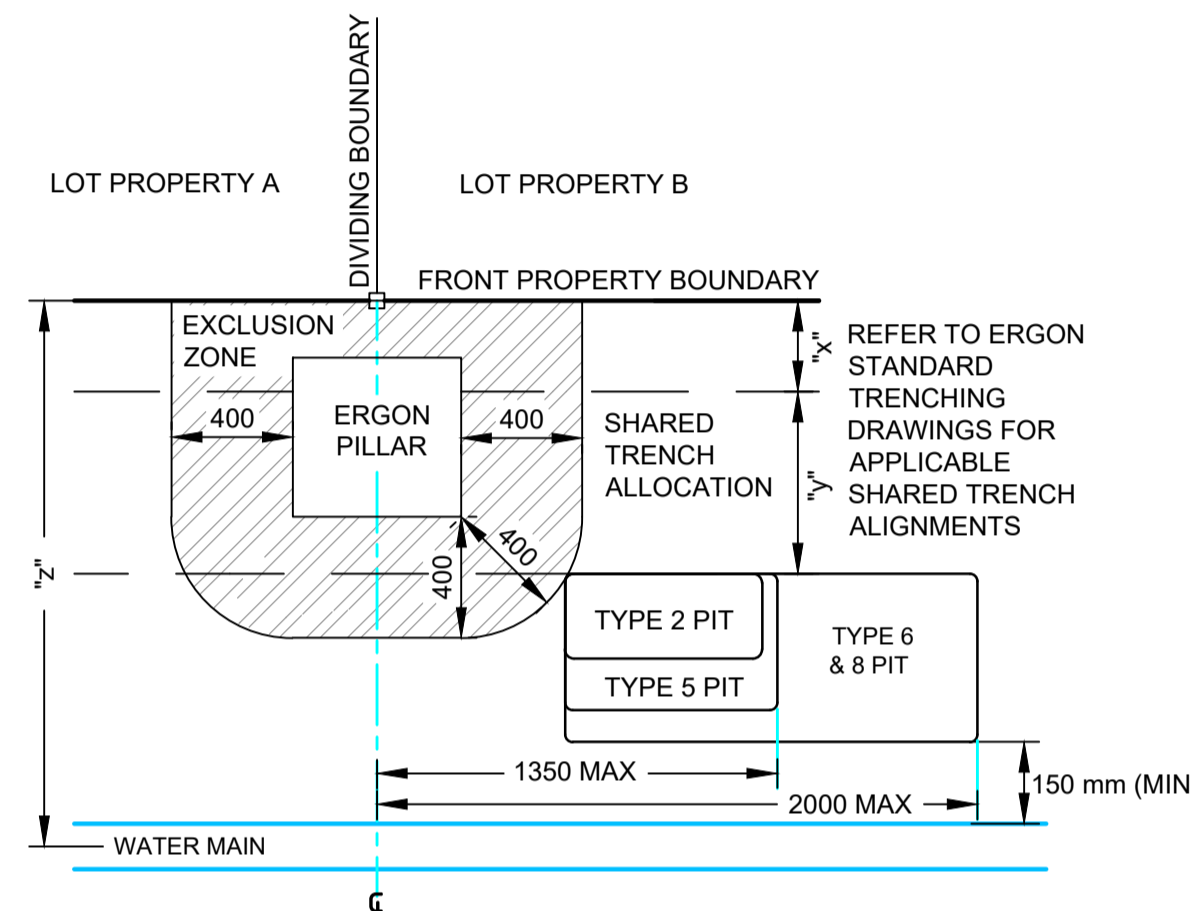
**TYPICAL PIT DETAIL 3**  
PIT OFFSET FROM BOUNDARY WITH AN ERGON PILLAR AND 90° ERGON CONDUIT.  
- ENSURE 100 mm MIN CLEARANCE TO ERGON CROSS ROAD CONDUIT



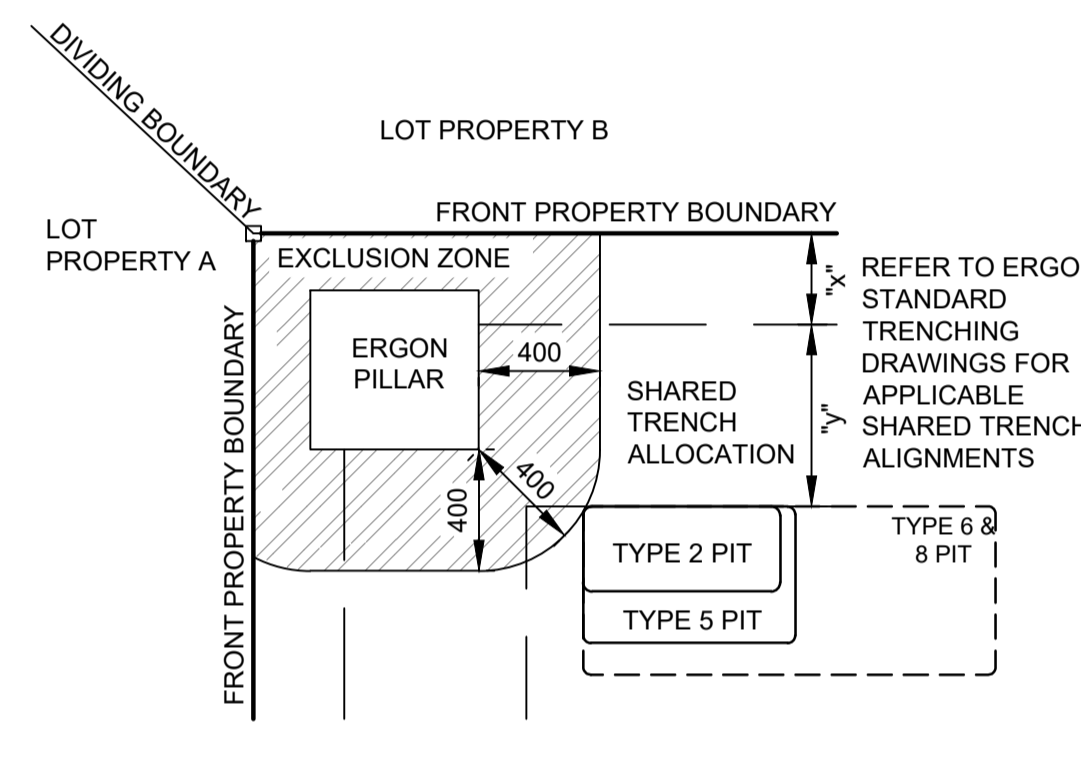
**TYPICAL PIT DETAIL 4**  
PIT OFFSET FROM BOUNDARY WITH AN ERGON PILLAR AND ANGLED ERGON CONDUIT.  
- LOCATE FAR END OF PIT AS CLOSE AS POSSIBLE TO THE PROLONGATION OF DIVIDING BOUNDARY WHILST MAINTAINING A MINIMUM OF 100 mm CLEARANCE FROM ERGON CONDUIT(S) TO MINIMISE DRIVEWAY INTRUSION.



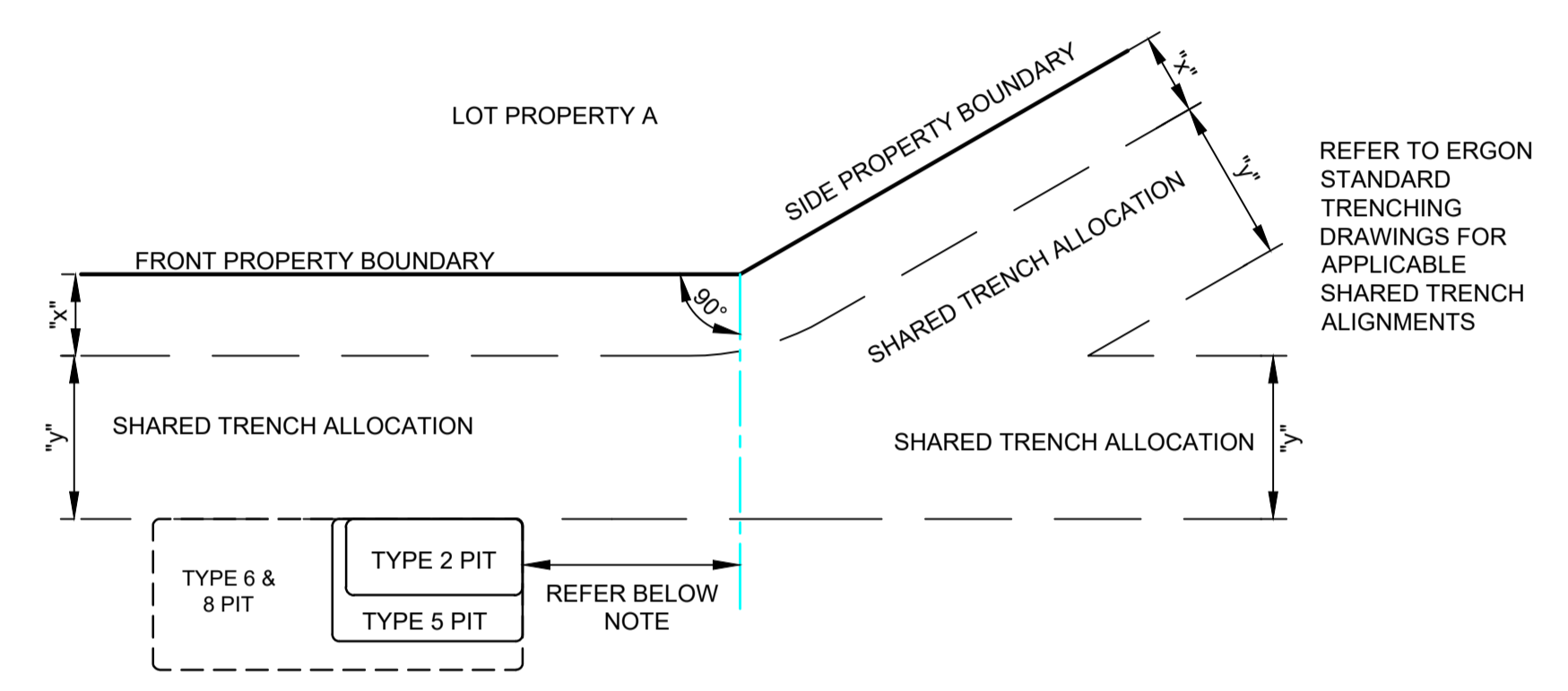
**TYPICAL PIT DETAIL 5**  
PIT OFFSET FROM BOUNDARY WITH AN ERGON PILLAR AND FIRE HYDRANT.  
- LOCATE END OF PIT AS CLOSE AS POSSIBLE TO THE PROLONGATION OF DIVIDING BOUNDARY WHILST MAINTAINING MINIMUM 150 mm CLEARANCE FROM FIRE HYDRANT AND MARGIN SETT TO MINIMISE DRIVEWAY INTRUSION.



**TYPICAL PIT DETAIL 6**  
TYPE 8 PIT OFFSET FROM BOUNDARY WITH AN ERGON PILLAR AND CLASHING WITH WATER MAIN.  
- LOCATE END OF PIT AS CLOSE AS POSSIBLE TO THE PROLONGATION OF DIVIDING BOUNDARY WHILST MAINTAINING MINIMUM 150 mm CLEARANCE FROM WATER MAIN TO MINIMISE DRIVEWAY INTRUSION.



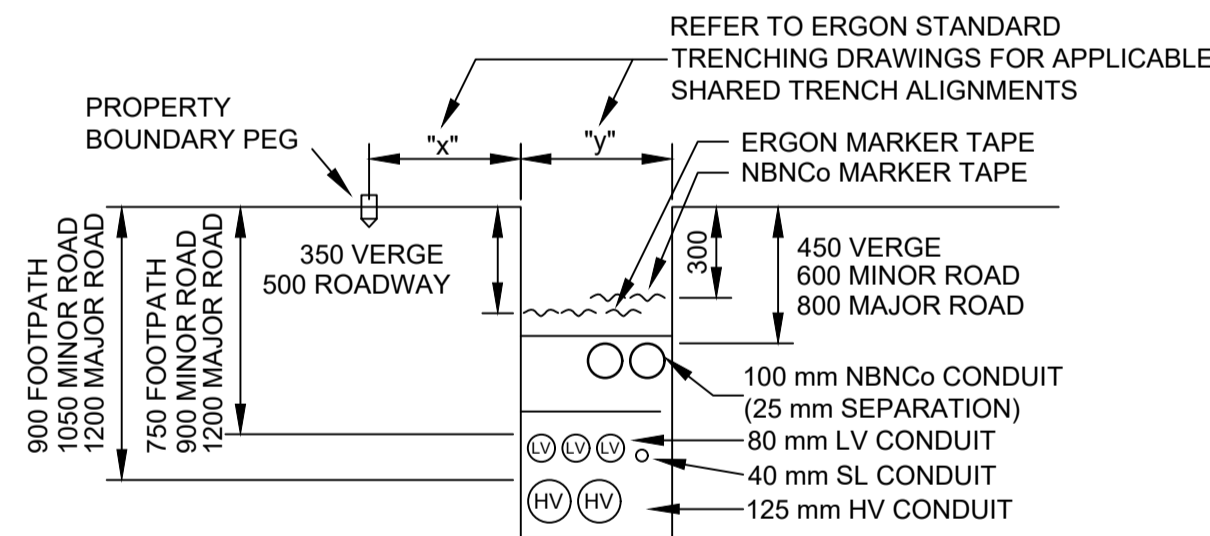
**TYPICAL PIT DETAIL 7**  
PIT OFFSET FROM BOUNDARY WITH AN ERGON PILLAR ON CORNER LOT.  
- LOCATE END OF PIT AS CLOSE AS PRACTICABLE TO THE INTERSECTING PROPERTY BOUNDARIES WHILST MAINTAINING CLEARANCE TO PILLAR EXCLUSION ZONE TO MINIMISE DRIVEWAY INTRUSION.



**TYPICAL PIT DETAIL 8**  
PIT OFFSET FROM PROPERTY TRUNCATION POINT.  
- LOCATE END OF PIT AS CLOSE AS PRACTICABLE TO THE TRUNCATION. WHERE APPLICABLE MAINTAIN REQUISITE COMPLIANCE TO FIGURE 13 IN THE NBN DEPLOYMENT GUIDELINES NBN-CTO-194.

**SEPARATION FROM ERGON CONDUITS**

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



**STANDARD TRENCH SECTION**  
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	TYPE 2	650	280	565	490	150	500
SERVICE DROP ACCESS PIT or BOUNDARY PIT or FJL PIT	TYPE 5	700	450	650	510	290	540
SERVICE DROP ACCESS PIT or LN PIT or FJL PIT	TYPE 6	1360	555	650	1130	340	600
DISTRIBUTION PIT or LN CONNECTION PIT	TYPE 8	1360	555	860	1130	390	820

ON COMPLETION, MARK UP THIS PRINT CLEARLY WITH ALL FINAL CHANGES AND RETURN TO PROJECT MANAGER

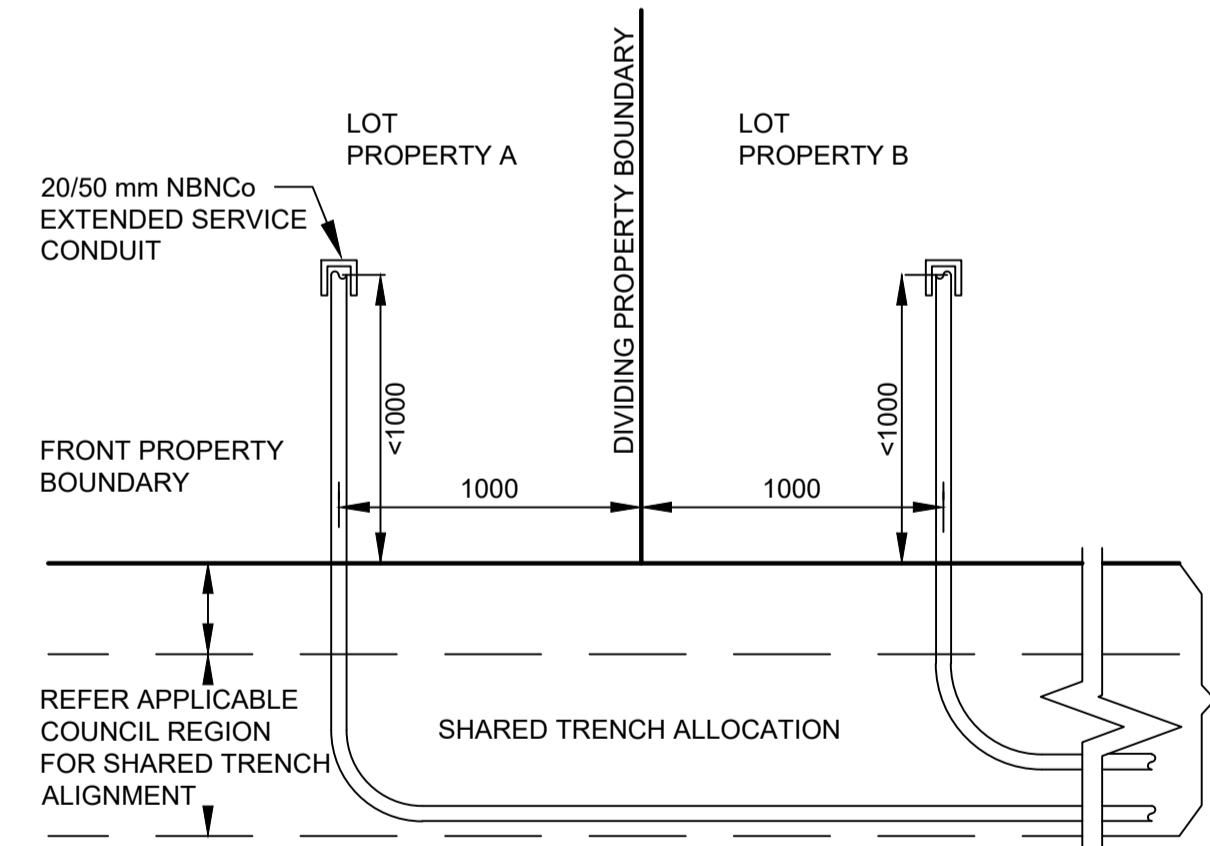
CHANGES: YES  NO

**CIVIL CONTRACTOR**

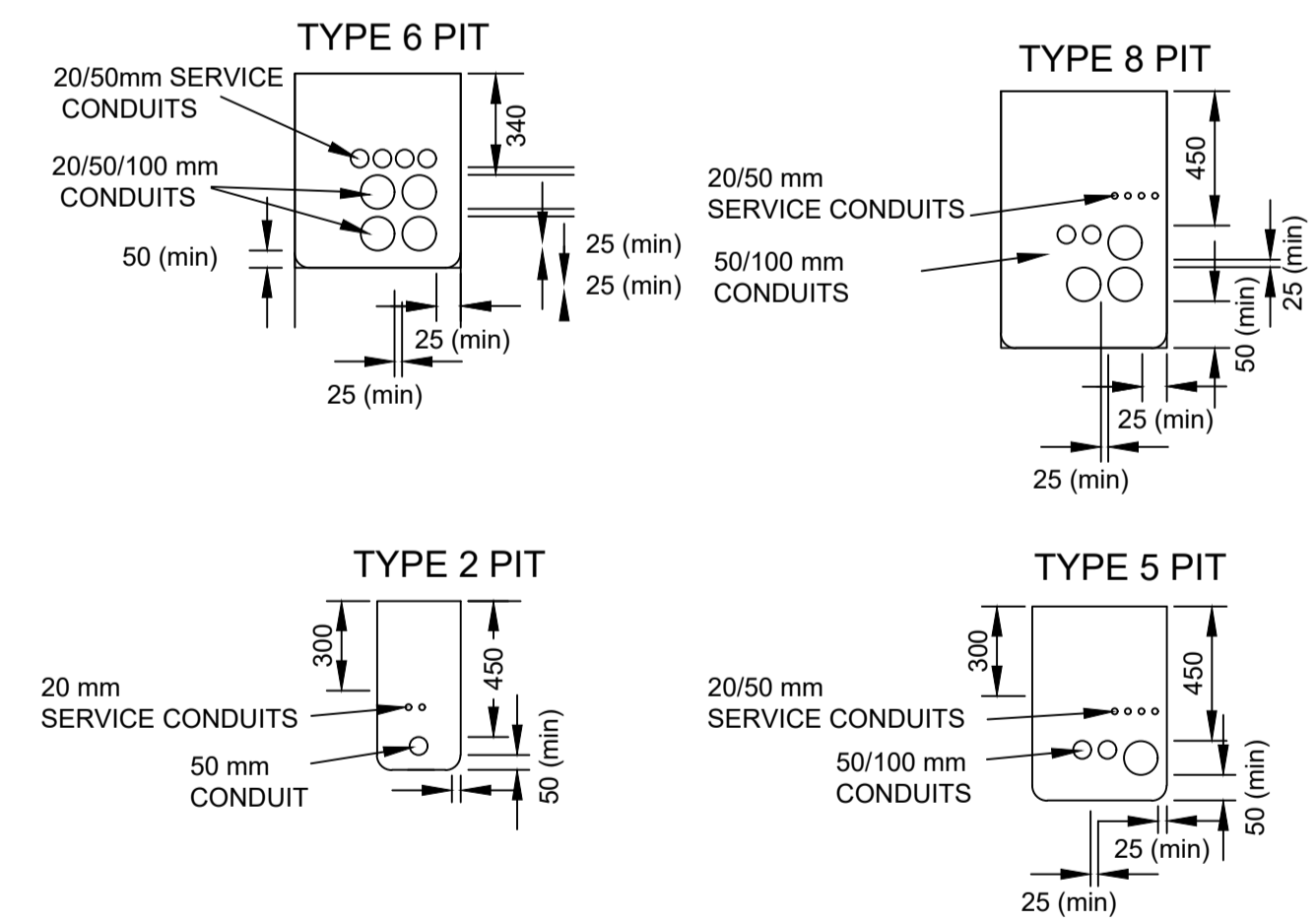
NAME: ANTHONY BURKE

SIGNATURE: ANTHONY BURKE

DATE: 24/03/2022



**EXTENDED SERVICE CONDUITS TO DISTANT PIT**  
SCALE 1:25 @ A1



**TYPICAL PIT END WALL DETAILS**  
SCALE 1:25 @ A1

**AS-BUILT**



REV	DATE	DRAFTER	DESCRIPTION	APPROVED
B	31/03/2022	NJ	AS BUILT	
A	06/10/2021	EC	FOR CONSTRUCTION	
1	24/5/21	SW	FOR APPROVAL	NBN

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**THE Reserve**  
From the developers of Kalymda Chase

DRAWING TITLE: THE RESERVE (KALYMDA CHASE) STAGE 13A NBNCo PIT AND PIPE DESIGN TYPICAL PIT LAYOUTS AND TRENCH DETAILS

ENABLE#:

STATE: QLD REGION: NQ

FSA: SAM: ADA:

PROJECT No: STG-W000182847

CADREF No: 3391-T03

SCALE AS SHOWN SHEET No. 3 OF 3 REV. B

REV	DATE	DRAFTER	DESCRIPTION	APPROVED
1				
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