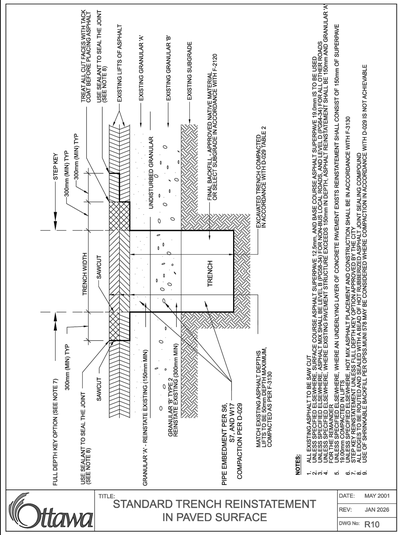
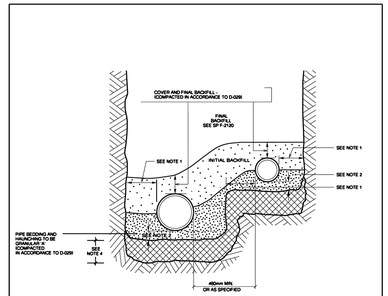


Ottawa	TITLE: STANDARD TRENCH REINSTATEMENT IN PAVED SURFACE	DATE:	MAY 2001
		REV:	JAN 2026
		DWG No:	R10



NOTES:

1.

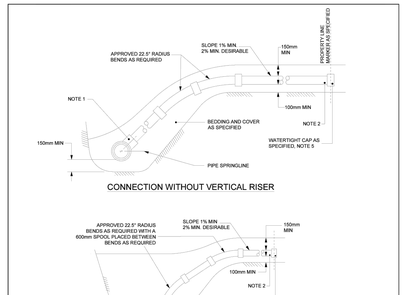
PIPE INSIDE DIAMETER (mm)	CLEARANCE (mm)
150 TO 900	CONC 450 PVC 450
OVER 900	500

2.

CONDITION	SEWER	SERVICES
EARTH	150 Min.	150 Min.
ROCK	300 Min.	150 Min.

3. FINAL BACKFILL - APPROVED NATIVE MATERIAL OR SELECT SUBGRADE IN ACCORDANCE WITH F-2120
4. WHEN APPROVED BY THE CONTRACT ADMINISTRATOR, POOR SOILS SHALL BE EXCAVATED TO ORE-KEY A FOUNDATION THAT SHALL BE FILLED TO THE BOTTOM OF THE BEDDING WITH GRANULAR 'B'
5. SEE S11.3 FOR TYPICAL SINGLE, SEMI-DETACHED AND TOWNHOUSE LOT SERVICING
6. INITIAL BACKFILL - CONCRETE PIPE - GRANULAR 'A' OR GRANULAR 'B' WITH 100% PASSING THE 37.5mm SIEVE PVC PIPE - GRANULAR 'A'

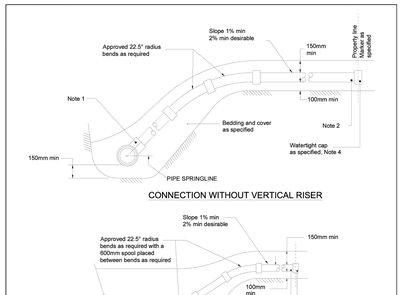
Ottawa	TITLE: COMBINED TRENCH (SEWERS & SEWER SERVICES)	DATE:	MAY 2001
		DEV. DATE:	MARCH 2019
		DWG No:	S7



NOTES:

1. DIAMETER OF SERVICE CONNECTIONS SHALL BE NO GREATER THAN 50% OF THE DIAMETER OF THE RIGID SEWER MAIN. DIAMETER. THE CONNECTION SHALL BE MADE USING A BELL END INSERT PER S11.2 OR AN APPROVED RUBBER GASKETED INSERT. INVERT OF SERVICE CONNECTION SHALL BE AT THE SAME ELEVATION OR GREATER THAN THE ELEVATION OF THE SPRINGLINE OF THE SEWER MAIN
2. SANITARY SERVICES TO BE 150mm AND STORM SERVICES TO BE 150mm FOR NEW RESIDENCES UNLESS SPECIFIED
3. APPROVED CONTROLLED SETTLEMENT JOINTS OPTIONAL FOR SERVICE CONNECTIONS TO MAIN SEWERS UP TO 5m DEEP. WHERE APPROVED, CONNECTIONS TO SEWERS OVER 6m DEEP REQUIRE APPROVED CONTROLLED SETTLEMENT JOINTS
4. VERTICAL RISER SHALL BE SAME AS SERVICE PIPE UNLESS OTHERWISE SPECIFIED
5. CAP AT THE PROPERTY LINE SHALL BE ADEQUATELY BRACED TO WITHSTAND TESTING PRESSURE
6. FOR NEW CONSTRUCTION, INSERTS MUST BE INSTALLED ON THE MAIN PIPE BEFORE THAT PIPE IS LAID. FOR SERVICES/BRANCHES ON EXISTING MAINS, SEE SPECIFICATION F-1011
7. APPROVED CUT-IN TOOL MUST BE USED FOR FIELD MADE CONNECTIONS
8. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN
9. RADIUS BENDS GREATER THAN 22.5° ARE NOT ALLOWED

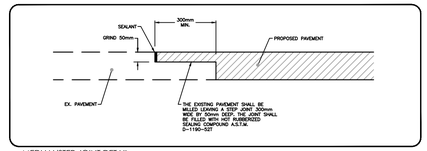
Ottawa	TITLE: SEWER SERVICE CONNECTIONS FOR RIGID MAIN SEWER PIPE (MODIFIED OPSD-1006.010)	DATE:	MAR 2006
		REV:	MAR 2024
		DWG No:	S11



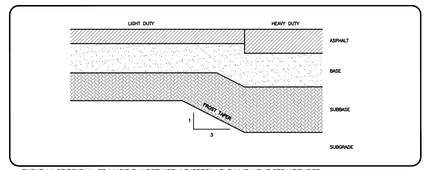
NOTES:

1. THE CONNECTION SHALL BE MADE USING AN APPROVED TEE OR WYE FITTINGS. INVERT OF SERVICE CONNECTION SHALL BE AT THE SAME ELEVATION OR GREATER THAN THE ELEVATION OF THE SPRINGLINE OF THE SEWER MAIN
2. SANITARY SERVICES TO BE 150mm AND STORM SERVICES TO BE 200mm FOR NEW RESIDENCES UNLESS SPECIFIED OTHERWISE, SERVICE PIPE SHALL BE SAME AS SERVICE PIPE UNLESS OTHERWISE SPECIFIED
3. APPROVED CONTROLLED SETTLEMENT JOINTS OPTIONAL FOR SERVICE CONNECTIONS TO MAIN SEWERS UP TO 5m DEEP. WHERE APPROVED, CONNECTIONS TO SEWERS OVER 6m DEEP REQUIRE APPROVED CONTROLLED SETTLEMENT JOINTS
4. CAP AT THE PROPERTY LINE SHALL BE ADEQUATELY BRACED TO WITHSTAND TESTING PRESSURE
5. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN
6. RADIUS BENDS GREATER THAN 22.5° ARE NOT ALLOWED

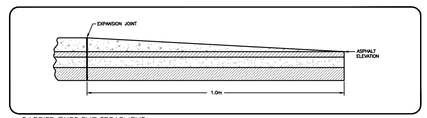
Ottawa	TITLE: SEWER SERVICE CONNECTIONS FOR FLEXIBLE MAIN SEWER PIPE	DATE:	MAR 2006
		REV:	JAN 2026
		DWG No:	S11.1



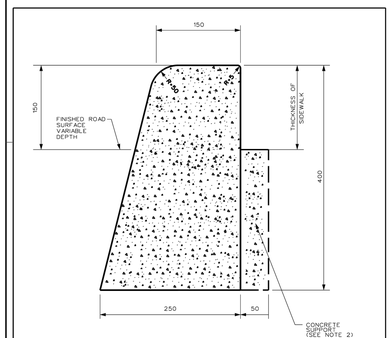
MEDIAN/STEP JOINT DETAIL
SCALE N.T.S.



TYPICAL SECTION - TRANSITION BETWEEN DIFFERING PAVEMENT STRUCTURES
SCALE N.T.S.



BARRIER CURB END TREATMENT
SCALE N.T.S.



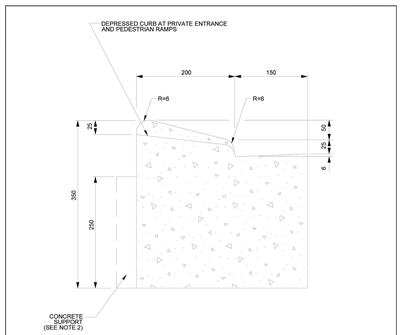
CONCRETE BARRIER CURB

NOTES:

1. THE FULL CURB DEPTH SHALL BE CARRIED THROUGH THE DEPRESSED ACCESS CROSSING.
2. A CONCRETE SUPPORT IS REQUIRED WHEN BUILT ADJACENT TO THE SIDEWALK.
3. IF AN EXTRUSION CURBING MACHINE IS USED, THE EXPANSION BITUMINOUS MATERIAL AND THE #15 DOWELS ARE TO BE PLACED AT THE END OF THE EXTRUSION.
4. EXPANSION AND CONTRACTION JOINTS AS PER SCS.1
5. DEPRESSED CURB HEIGHT - FOR PEDESTRIAN CURB RAMPS 0 TO 6 mm AND FOR PRIVATE ENTRANCES 0 TO 13mm

(DIMENSIONS mm)
NTS

Ottawa	TITLE: CONCRETE BARRIER CURB FOR GRANULAR BASE PAVEMENT (MODIFIED OPSD 600.110)	DATE:	JAN 2003
		REV:	JANUARY 2026
		DWG No:	SC1.1

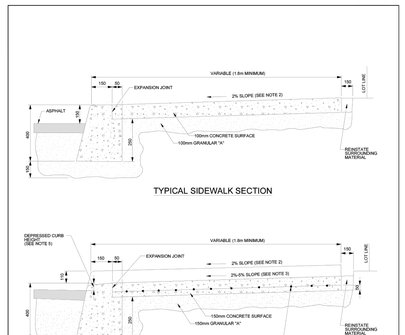


MOUNTABLE CURB WITH GUTTER

NOTES:

1. THE FULL CURB DEPTH SHALL BE CARRIED THROUGH THE DEPRESSED ACCESS CROSSING
2. A CONCRETE SUPPORT IS REQUIRED WHEN BUILT ADJACENT TO THE SIDEWALK
3. IF AN EXTRUSION CURBING MACHINE IS USED, THE EXPANSION BITUMINOUS MATERIAL AND THE #15 DOWELS ARE TO BE PLACED AT THE END OF THE EXTRUSION
4. ALL MEASUREMENTS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED
5. EXPANSION AND DUMMY JOINTS AS PER SCS
6. DEPRESSED CURB HEIGHT - FOR PEDESTRIAN CURB RAMPS 0 TO 6 mm AND FOR PRIVATE ENTRANCES 0 TO 13mm

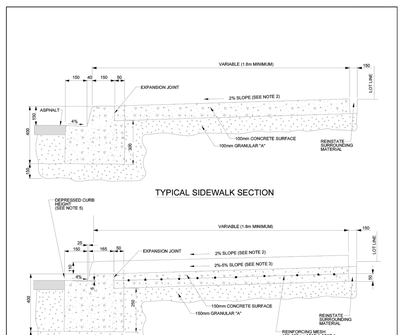
Ottawa	TITLE: CONCRETE MOUNTABLE CURB WITH GUTTER FOR GRANULAR BASE PAVEMENT	DATE:	MAR 2003
		REV:	FEB 2025
		DWG No:	SC1.3



NOTES:

1. ALL MEASUREMENTS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED
2. THE MAXIMUM SLOPE IS NOT TO EXCEED 2%
3. FOR CURB RAMPS, SLOPE OF 2% TO 5%, MAXIMUM 8%
4. EXPANSION AND DUMMY JOINTS AS PER SCS
5. DEPRESSED CURB HEIGHT - FOR PEDESTRIAN CURB RAMPS 0 TO 6 mm AND FOR PRIVATE ENTRANCES 0 TO 13mm

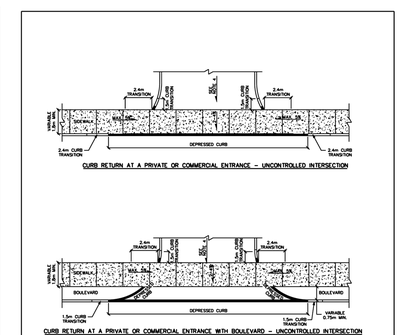
Ottawa	TITLE: CONCRETE BARRIER CURB WITH SIDEWALK	DATE:	JAN 2003
		REV:	JULY 2025
		DWG No:	SC1.4



NOTES:

1. ALL MEASUREMENTS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED
2. THE MAXIMUM SLOPE IS NOT TO EXCEED 2%
3. FOR CURB RAMPS, SLOPE OF 2% TO 5%, MAXIMUM 8%
4. EXPANSION AND DUMMY JOINTS AS PER SCS
5. DEPRESSED CURB HEIGHT - FOR PEDESTRIAN CURB RAMPS 0 TO 6 mm AND FOR PRIVATE ENTRANCES 0 TO 13mm

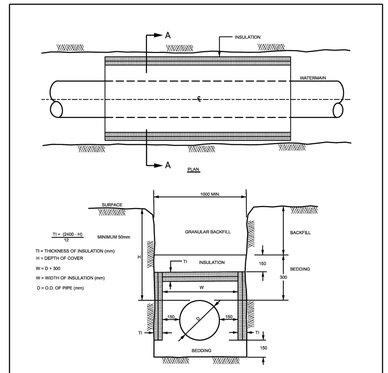
Ottawa	TITLE: CONCRETE CURB AND GUTTER WITH SIDEWALK	DATE:	MAY 2001
		REV:	JULY 2025
		DWG No:	SC3



NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
2. CURB DETAILS SEE SC1.1, SC1.2 AND SC1.3.
3. SIDEWALK DETAILS SEE SC2 AND SC3.
4. MAXIMUM SLOPE VARIES, SEE PRIVATE APPROACH BYLAW.
5. UNCONTROLLED INTERSECTION MEANS AN ENTRANCE NOT LOCATED AT A TRAFFIC SIGNAL OR ALL-WAY STOP CONTROL.

Ottawa	TITLE: CURB RETURN ENTRANCES - UNCONTROLLED INTERSECTIONS	DATE:	MARCH 2007
		REV:	MARCH 2021
		DWG. No.:	SC7.1

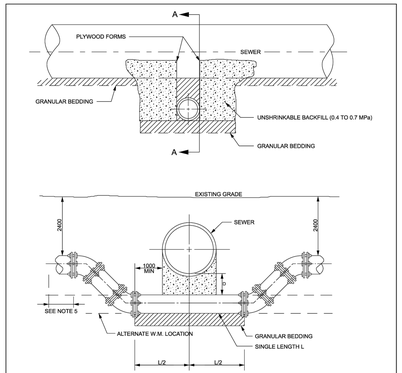


NOTES

FOR 150 - 400mm (NOMINAL DIAMETER) WATERMAINS, WHERE THE DEPTH OF COVER IS LESS THAN 2400mm

1. INCREMENTS OF THICKNESS SHALL BE ADJUSTABLE TO 25mm.
2. IN PROXIMITY OF MAINTENANCE HOLES, CLEVISTEIL CATCHBASINS, ETC., INSULATION SHALL BE PLACED PER DETAIL W23
3. DEPTH OF COVER LESS THAN 1200mm REQUIRES SPECIAL DESIGN.
4. STAGGER JOINTS OF MULTIPLE SHEETS.
5. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
7. INSULATION NOT TO BE USED AS A MEANS TO AVOID EXCAVATION.

Ottawa	THERMAL INSULATION FOR WATERMAINS	DATE:	MAY 2001
		REV:	JANUARY 2026
		DWG. No.:	W22

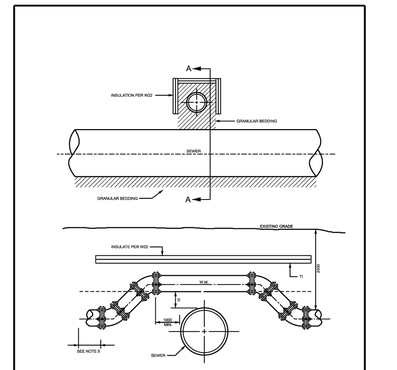


NOTES:

FOR WATERMAIN 100mm (NOMINAL) TO 400mm (NOMINAL)

1. BARREL TO INVERT SEPARATION (D) SHALL BE 500mm MINIMUM
2. THRUST BLOCKS FOR MAINS LARGER THAN 400mm (NOMINAL) SHALL BE PER SPECIAL DESIGN
3. FOR 300mm (NOMINAL) AND 400mm (NOMINAL) MAINS, BENDS SHALL BE MAX. 22° 30'
4. CONCRETE FOR THRUST BLOCKS SHALL BE 20 MPa
5. REFER TO W26.5 FOR RESTRAINED LENGTH REQUIREMENTS
6. REFER TO W26.6 AND W26.7 FOR THRUST BLOCK REQUIREMENTS
7. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED
8. DESIGNED TO MEET THE INTENT OF THE MOE WATERMAIN DESIGN CRITERIA JUNE 2012
9. CATHODIC PROTECTION MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH W39, W40, AND W42
10. TRACER WIRE REQUIRED FOR PVC, PEX AND HDPE WATERMAIN PIPE ONLY AS PER W36

Ottawa	TITLE: WATERMAIN CROSSING BELOW SEWER	DATE:	MAY 2001
		REV:	JAN 2026
		DWG No:	W25

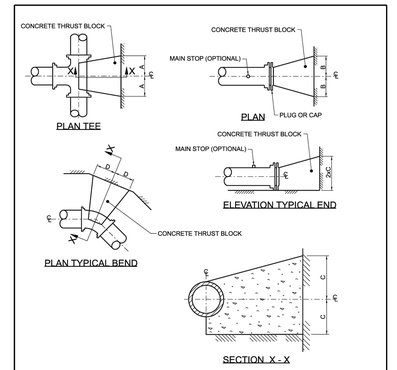


NOTES:

FOR WATERMAIN 100mm (NOMINAL) TO 400mm (NOMINAL)

1. BARREL TO BARREL SEPARATION (D) SHALL BE 500mm MINIMUM.
2. THRUST BLOCK FOR MAINS LARGER THAN 400mm (NOMINAL) SHALL BE PER SPECIAL DESIGN.
3. FOR 300mm (NOMINAL) AND 400mm (NOMINAL) MAINS, BENDS SHALL BE MAX. 22° 30'.
4. CONCRETE FOR THRUST BLOCKS SHALL BE 20 MPa.
5. REFER TO W26.5 AND W26.6 FOR THRUST BLOCK REQUIREMENTS.
6. REFER TO W26.6 AND W26.7 FOR THRUST BLOCK REQUIREMENTS.
7. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
8. DESIGNED TO MEET THE INTENT OF THE MOE WATERMAIN DESIGN CRITERIA JUNE 2012.
9. CATHODIC PROTECTION MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH W39, W40, AND W42.
10. TRACER WIRE REQUIRED FOR PVC, PEX AND HDPE WATERMAIN PIPE ONLY AS PER W36.

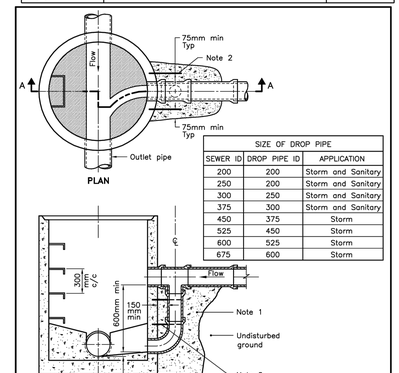
Ottawa	WATERMAIN CROSSING OVER SEWER	DATE:	MAY 2001
		REV:	JANUARY 2026
		DWG. No:	W25.2



NOTES:

1. CONCRETE SHALL BE PLACED TO WITHIN 50mm OF FACE OF THE BELL.
2. BOND BREAKER TO BE USED BETWEEN CONCRETE AND FITTINGS.
3. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.
4. REFER TO W25.4 FOR ADDITIONAL REQUIREMENTS.
5. THRUST BLOCKS SHALL BE 20 MPa. CONCRETE AND AS SHOWN ON ABOVE DRAWINGS UNLESS OTHER DIRECTED BY THE CONTRACT ADMINISTRATOR. THE BLOCK SHALL BE CENTERED ON THE THRUST FORCE AND SHALL ALSO PARTIALLY CRADLE THE FITTING TO DISTRIBUTE THE FORCE.
6. THE SIDES OF THE BLOCK SHALL BE 50mm FROM THE JOINT ON EITHER SIDE OF THE BEND OR TEE. THE BLOCK SHALL BE POURED AGAINST UNDISTURBED SOIL AT THE BOTTOM AND SIDE OF THE TRENCH. WHERE THRUST BLOCKS CAN NOT BE POURED TO UNDISTURBED SOIL, OR WHERE IT WOULD CONFLICT WITH EXISTING OR FUTURE INFRASTRUCTURE, THE THRUST BLOCK SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER.
7. EXCEPT FOR THE ADDITION OF WATER, CONCRETE FOR THRUST BLOCKS SHALL COME PREMIXED FROM A CONCRETE SUPPLIER, AS 'READY MIX' FROM A CONCRETE TRUCK. ON-SITE MIXING OF CEMENT, SAND AND AGGREGATE ETC. BY THE CONTRACTOR, FOR THE PURPOSE OF MAKING CONCRETE THRUST BLOCKS AND/OR WALLS WILL NOT BE ACCEPTED. N.T.S.

Ottawa	CONCRETE THRUST BLOCKS FOR PVC AND DI PIPE 400mm AND UNDER	DATE:	MAY 2001
		REV:	MARCH 2022
		DWG. No:	W25.3



NOTES:

1 Concrete shall be placed to undisturbed ground and the outside face of the maintenance hole, but there shall be a minimum of 150mm of 15MPa concrete around the drop pipe.
2 Concrete shall be secured to the maintenance hole with 450mm long, 13mm diameter threaded rods and drilled expansion anchors down either side of the drop pipe at 300mm centres.
A All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING		Nov 2016	Rev 3
CAST–IN–PLACE MAINTENANCE HOLE DROP STRUCTURE TEE			OPSD 1003.010

Stantec

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www.stantec.com

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Legend

Notes

2	REVISED PER CITY COMMENTS AND NEW SITE PLAN	WAJ	SGG	26.10.30
1	REVISED AS-BUILT SERVICING	WAJ	SGG	26.03.30
0	ISSUED FOR REVIEW	WAJ	SGG	26.03.25
Revision		By	Appd.	YY.MM.DD
File Name: 160401760-D8.dwg		WAJ	SGG	26.02.24
		Dwn.	Chkd.	Dsgn. YY.MM.DD

Permit-Seal

LICENSED PROFESSIONAL ENGINEER
D. C. THIFFAULT
100186107
2026-11-02
PROVINCE OF ONTARIO

Client/Project
RICHCRAFT HOMES LTD.

TRAILSEDGE WEST BLOCK 121
6259, 6267, 6271, & 6273 RENAUD ROAD
OTTAWA, ON

Title
DETAIL SHEET

Project No.	Scale	
160401760	AS NOTED	
Drawing No.	Sheet	Revision
DS-1	6 of 10	2

D07-12-25-0092
PLAN # 19468

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2026/10/29 4:23 PM By: Jefferson, Warren

ORIGINAL SHEET - ARCH D