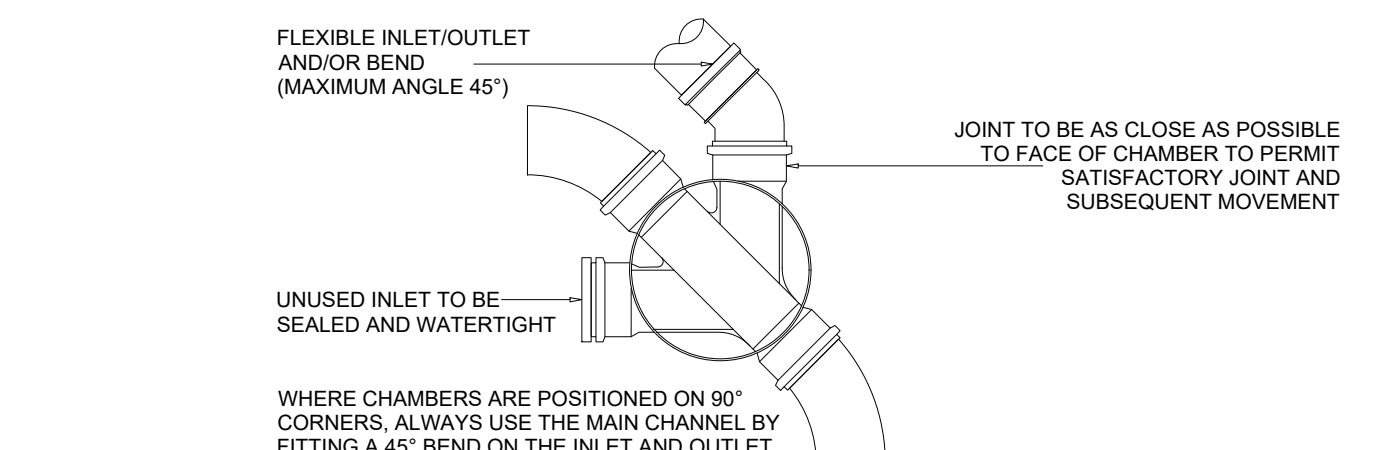
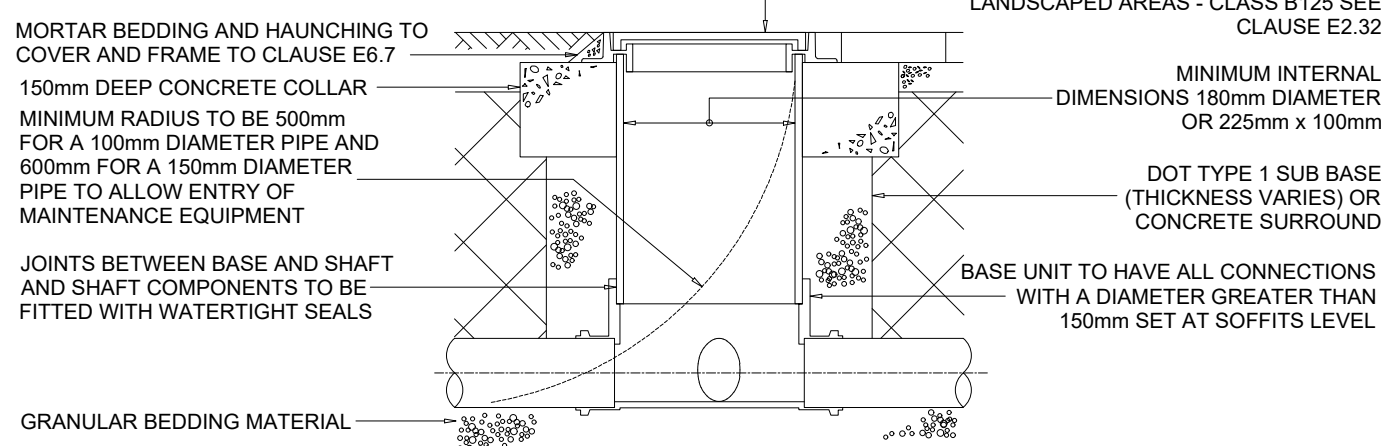
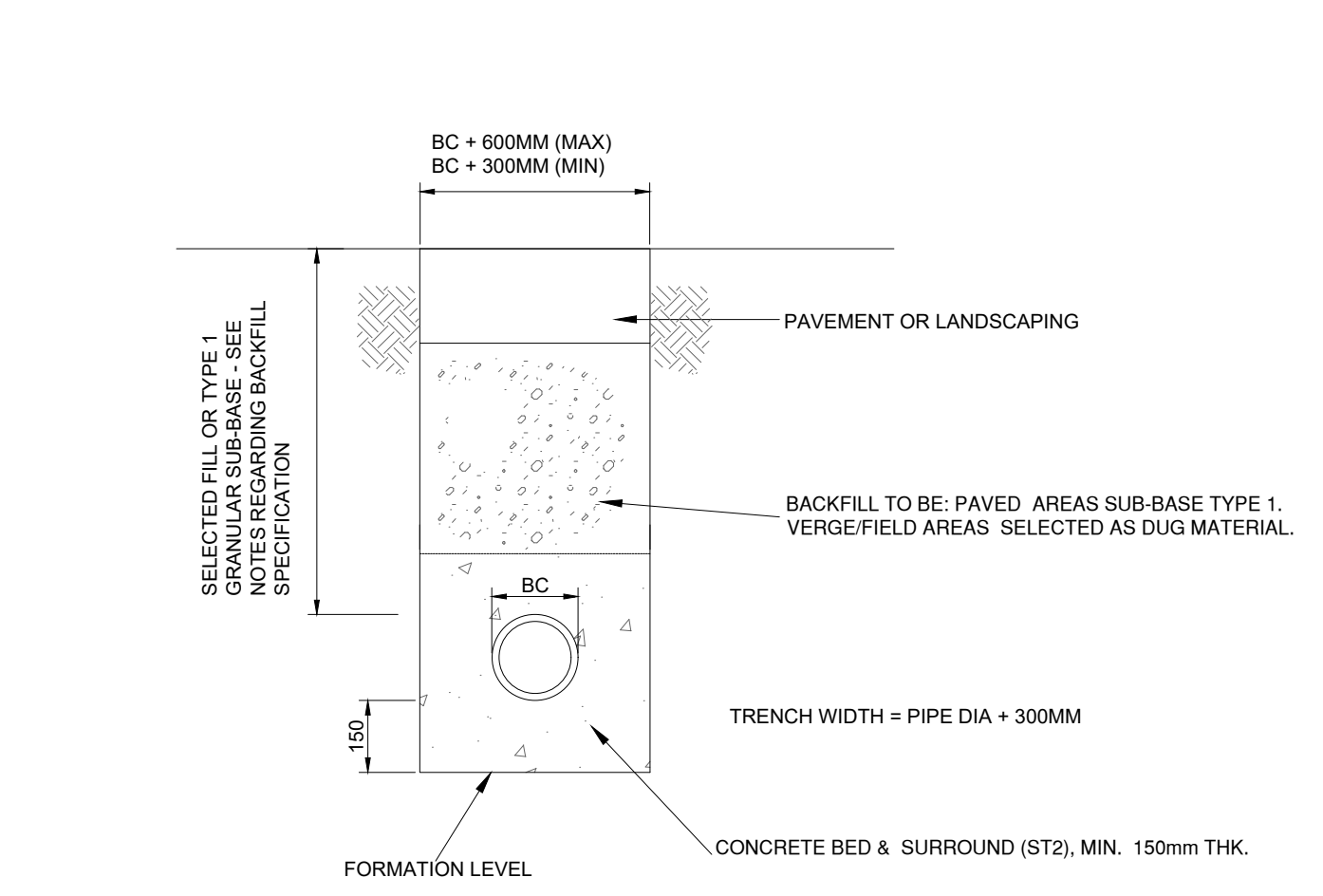


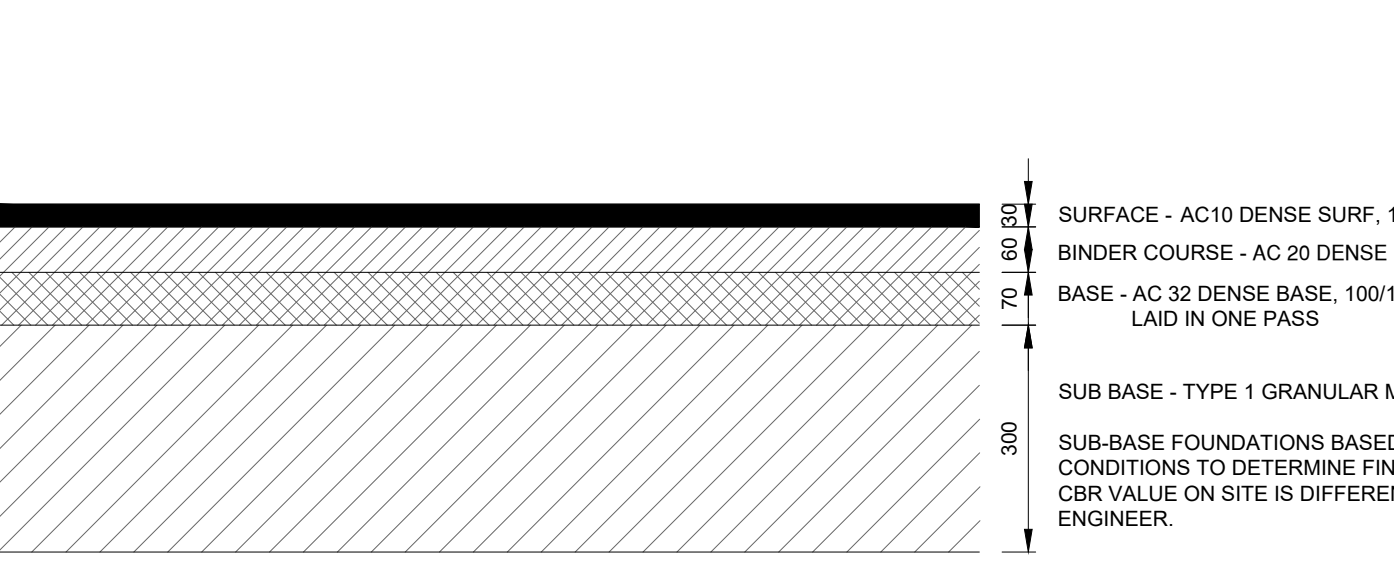
**SITED IN DRIVEWAYS/PAVED AREAS**



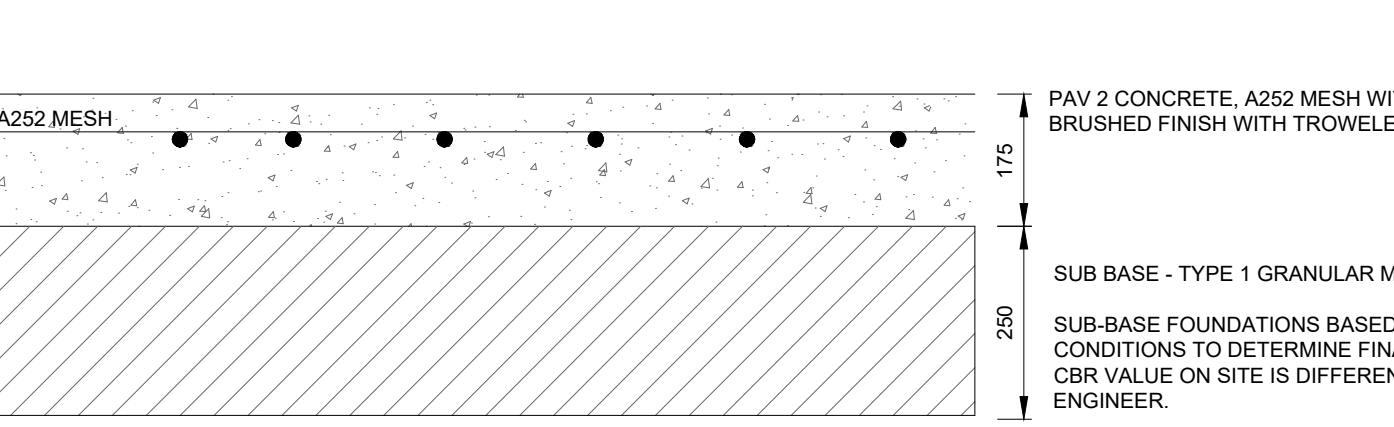
**TYPE 4 INSPECTION CHAMBER MAXIMUM DEPTH FROM COVER TO SOFFIT 2m**  
SCALE 1:20



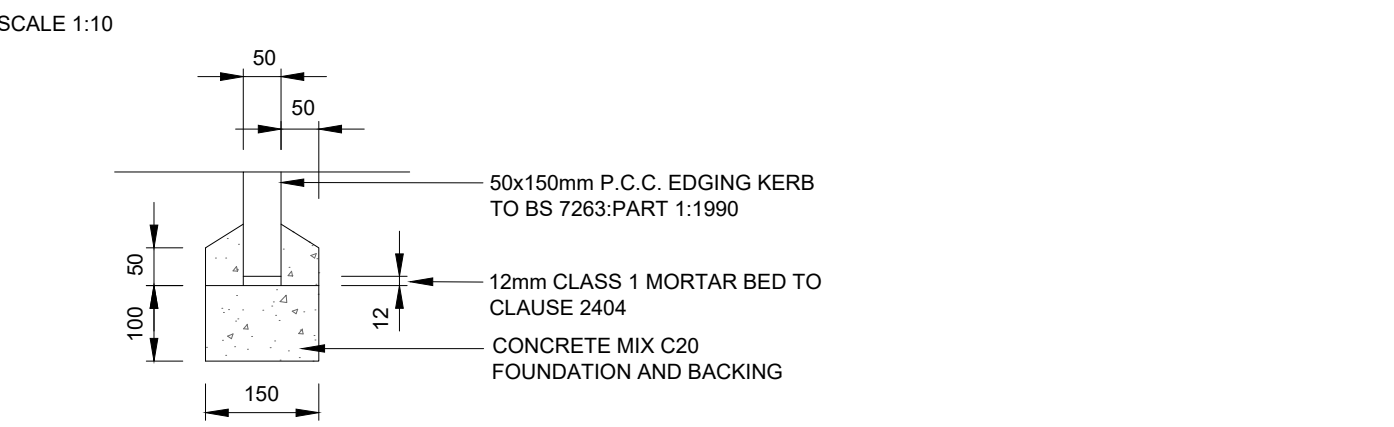
**CLASS Z BED AND SURROUND FOR PIPE DEPTHS LESS THAN 1.2m**  
SCALE 1:10



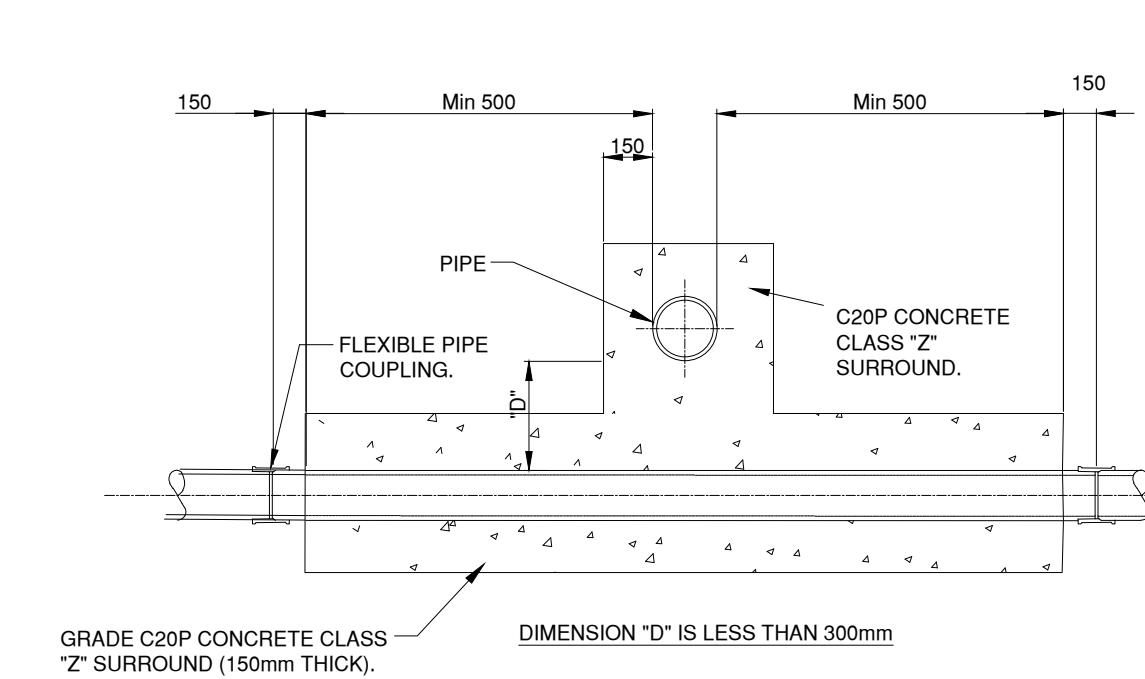
**PRIVATE ACCESS ROAD**  
SCALE 1:20



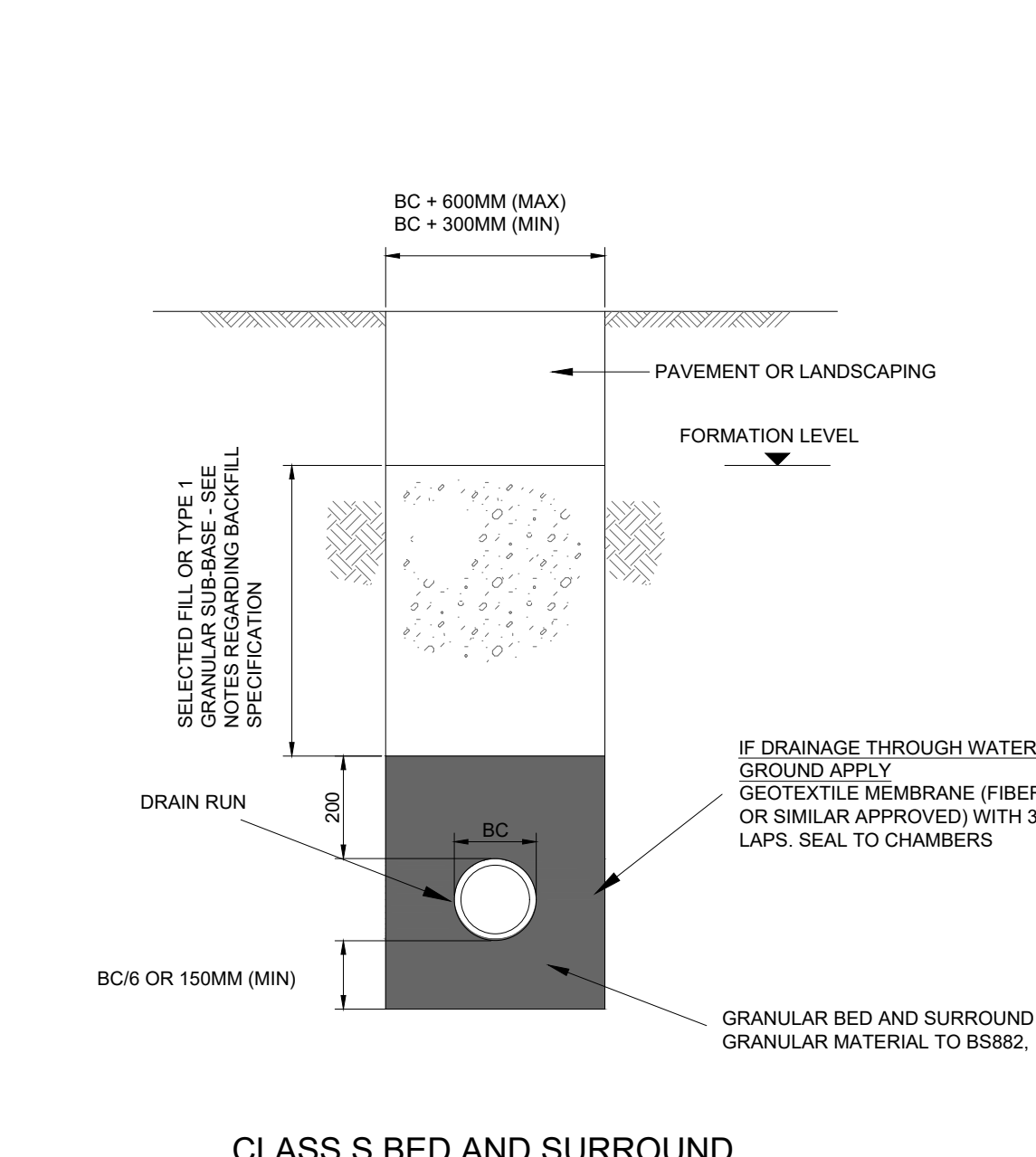
**EXTERNAL CONCRETE RAMP**  
SCALE 1:10



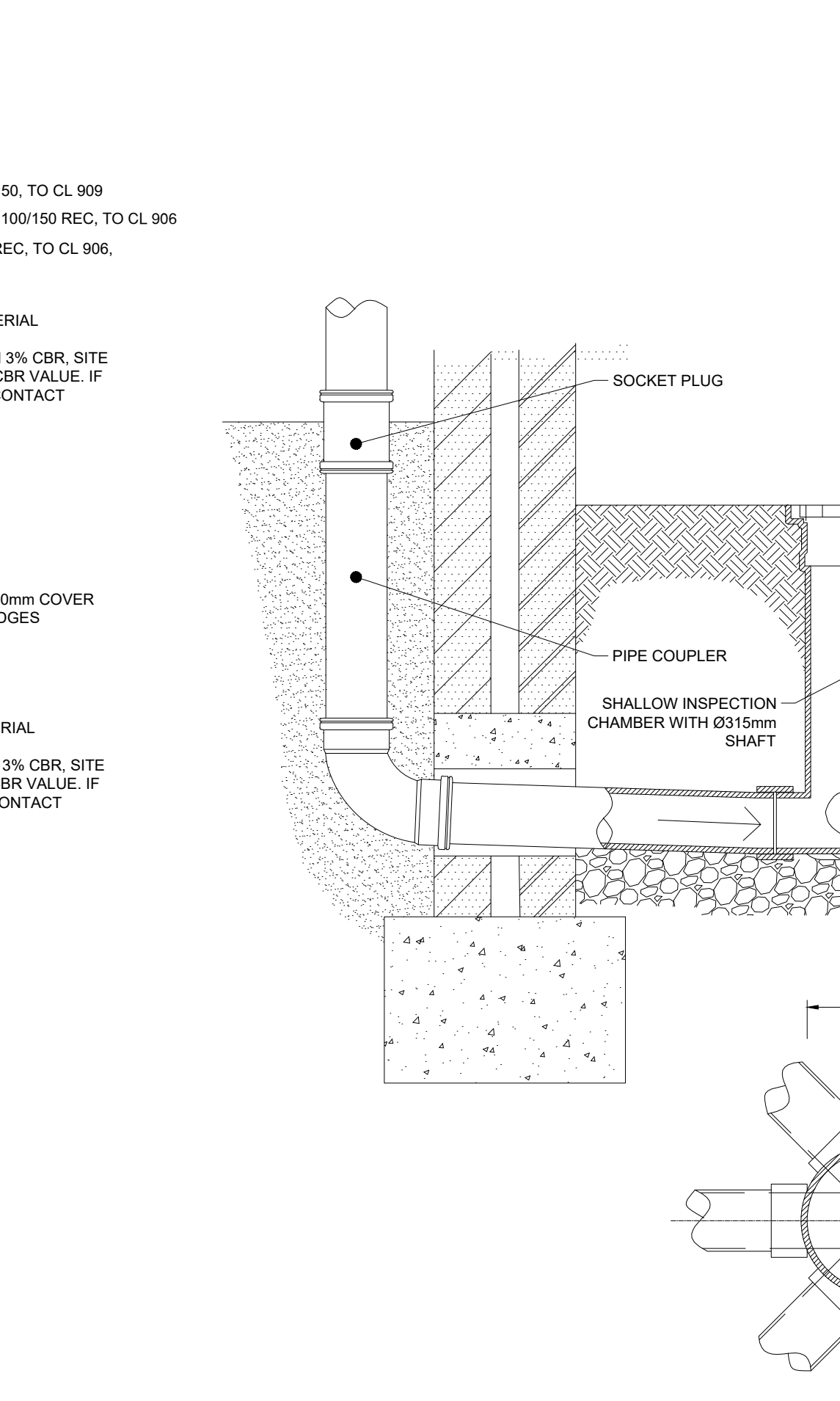
**PRECAST CONCRETE EDGING KERB TYPE EF**  
SCALE 1:10



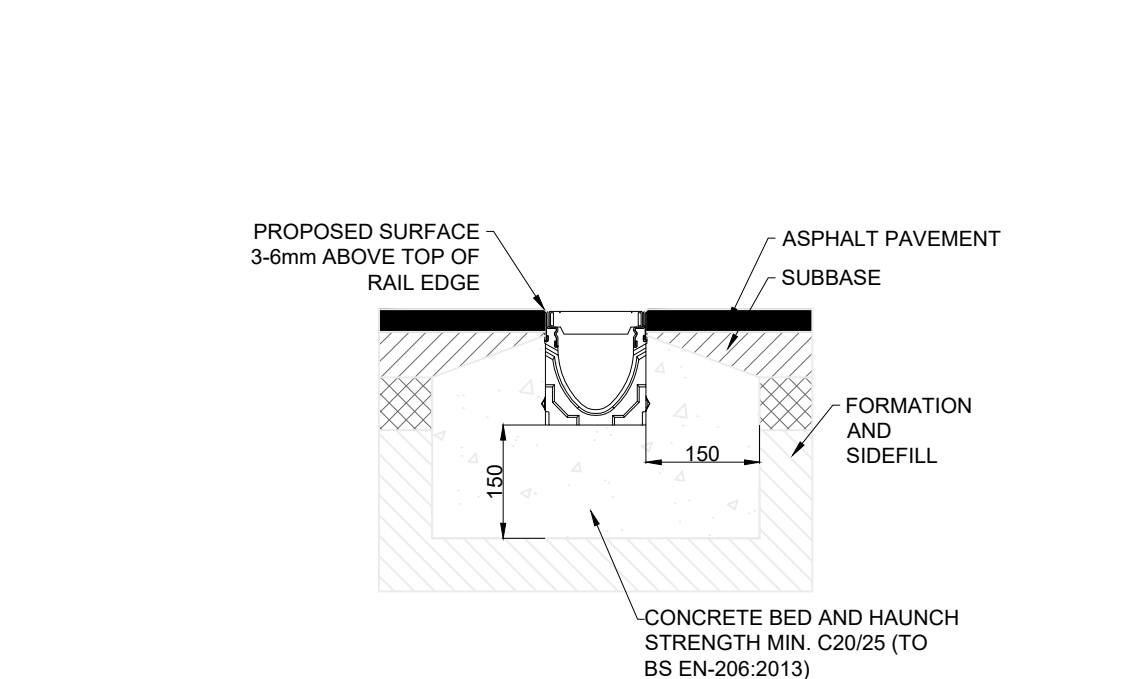
**TYPICAL PROTECTION TO PIPES CROSSING WHERE DISTANCE APART IS LESS THAN 300mm.**  
SCALE 1:20



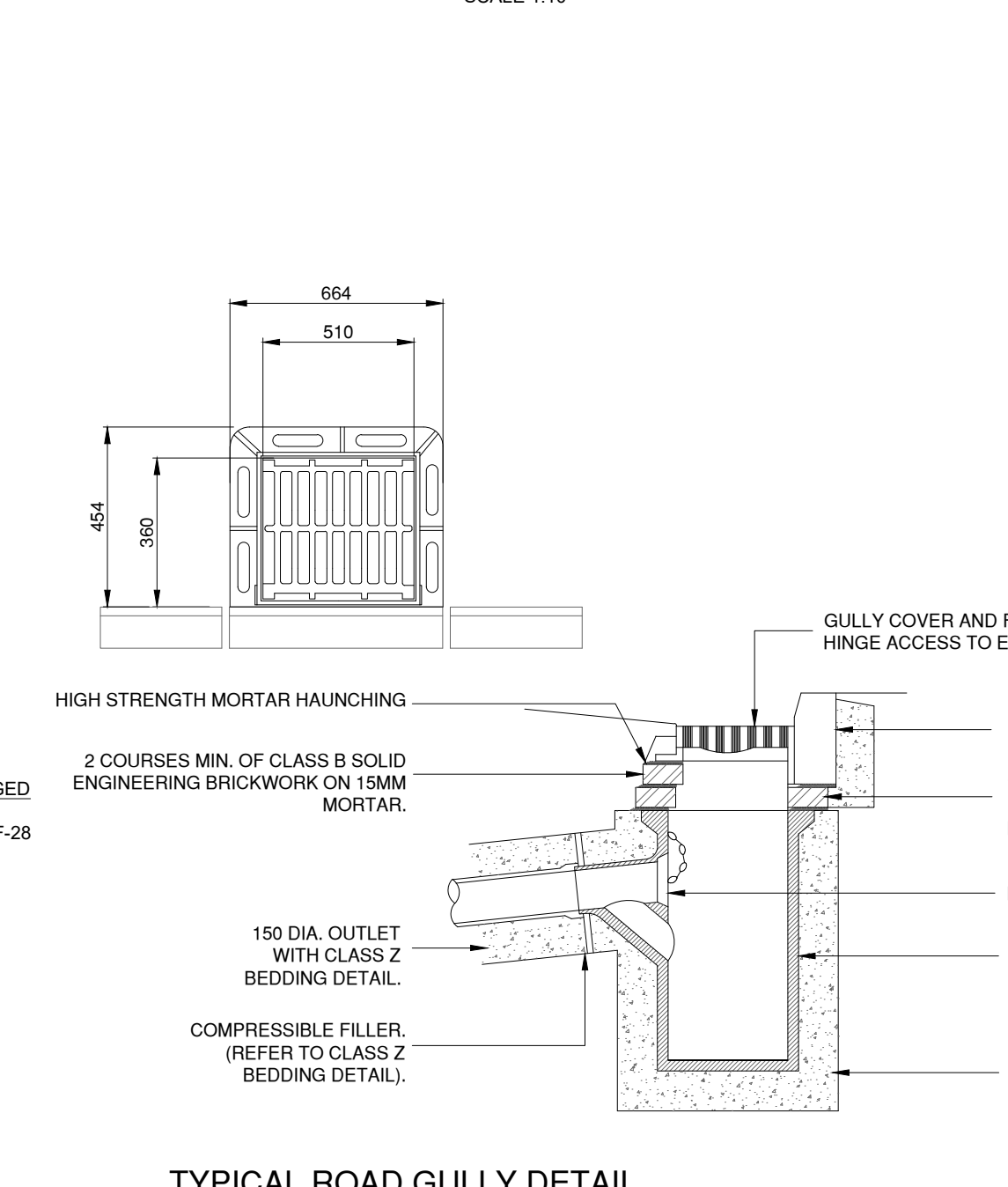
**CLASS S BED AND SURROUND**  
SCALE 1:10



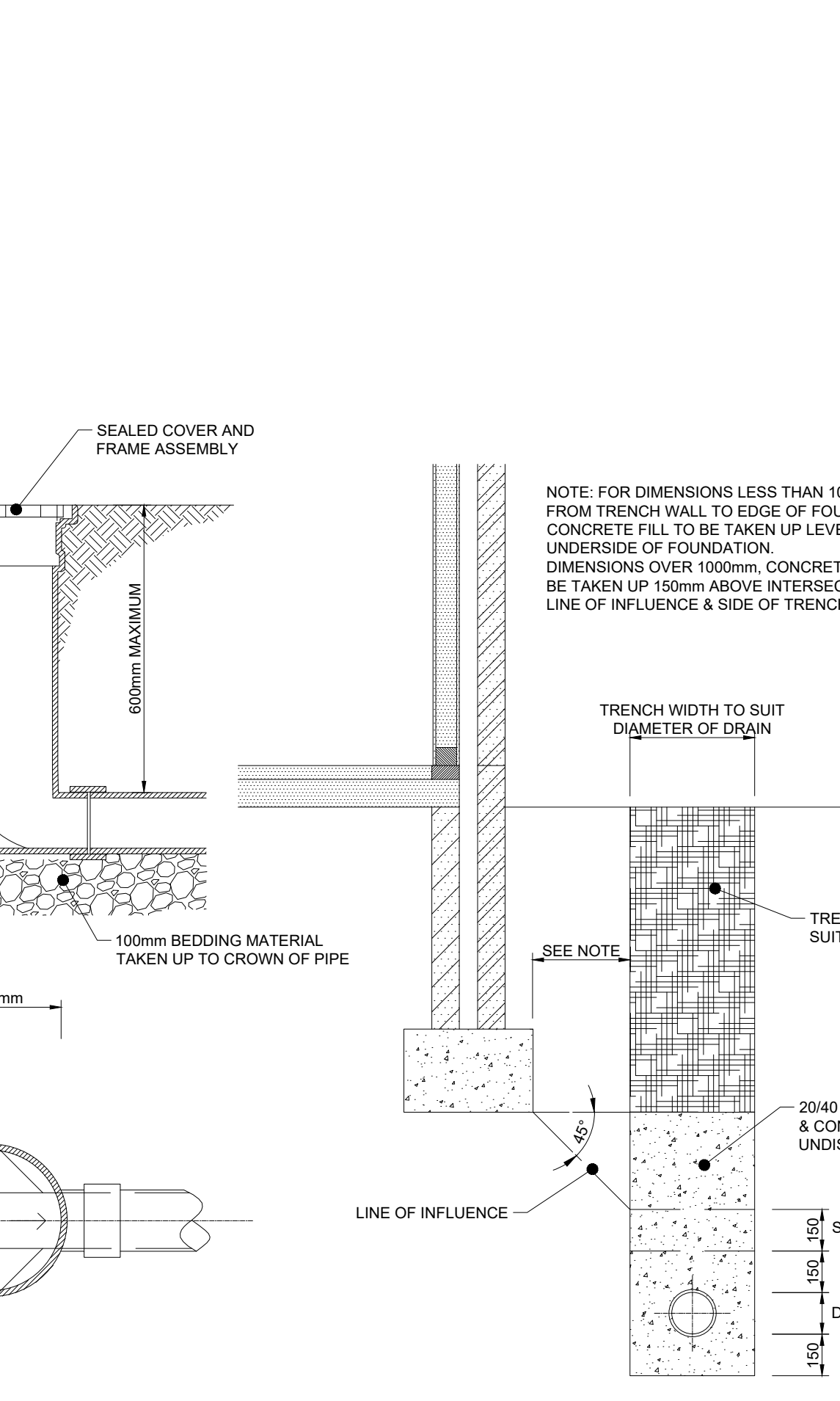
**TYPICAL SHALLOW ACCESS INSPECTION CHAMBER**  
SCALE 1:10



**CHANNEL DRAIN DETAIL**  
SCALE 1:10



**TYPICAL ROAD GULLY DETAIL**  
SCALE 1:20

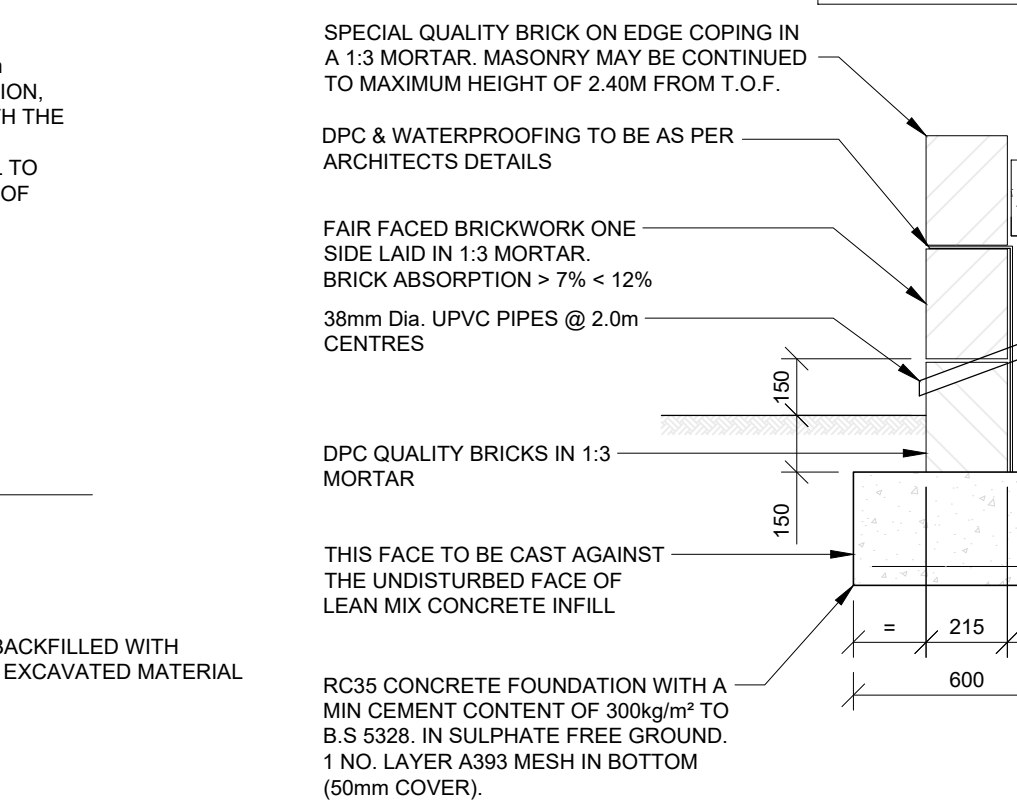


**CONCRETE BACKFILL IN TRENCHES ADJACENT TO FOUNDATIONS**  
SCALE 1:10

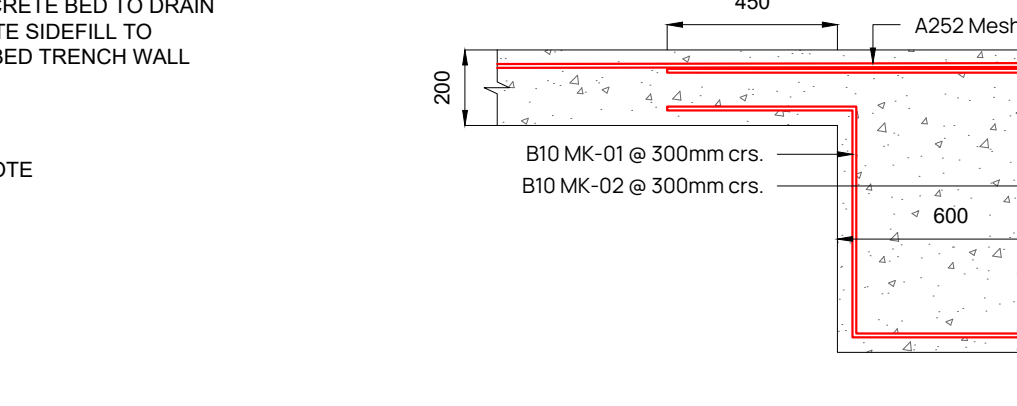
**HARDSTANDING NOTES:**

- SUB BASE DEPTHS BASED ON 3% CBR VALUE. IN ORDER TO PROVIDE AN ACCURATE CONSTRUCTION THICKNESS CBR TESTS SHOULD BE TAKEN AT FORMATION LEVEL AND THE ENGINEER INFORMED OF THE RESULTS. THE DISTANCE BETWEEN TESTS SHOULD BE CLARIFIED BY THE LOCAL AUTHORITY HIGHWAY ENGINEER. AT LEAST 5 WORKING DAYS NOTICE SHOULD BE PROVIDED PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- ALL WORKS TO THE PUBLIC HIGHWAY WILL REQUIRE THE INSPECTION AND APPROVAL OF THE LOCAL HIGHWAYS DEPARTMENT. THE CONTRACTOR SHOULD CONTACT THE HIGHWAYS INSPECTOR PRIOR TO COMMENCEMENT TO AGREE AN INSPECTION REGIME.
- ALL PLACEMENT OF MATERIALS SHOULD BE UNDERTAKEN IN ACCORDANCE WITH THE RELEVANT SECTIONS OF THE SPECIFICATION FOR HIGHWAYS WORKS.
- ANY SOFT SPOTS OR DISCREPANCIES IN SUB SOIL MATERIAL FOUND DURING EXCAVATION SHOULD BE REPORTED TO THE ENGINEER. ALL SOFT SPOTS SHOULD BE REMOVED AND REPLACED WITH TYPE 1 GRANULAR MATERIAL, PLACED IN ACCORDANCE WITH THE SPECIFICATION FOR HIGHWAY WORKS.
- NO FROST SUSCEPTIBLE MATERIAL SHOULD BE PLACED OR REMAIN WITHIN 450MM OF FINISHED LEVEL.
- CONCRETE FOR FOUNDATIONS AND HAUNCHING TO BS8900-2, STANDARD MIX, ST4. FOUNDATIONS SHOULD BE ACCURATELY CAST FOUNDATIONS IN ALL AREAS SUBJECT TO VEHICULAR TRAFFIC.
- FOLLOWING CONSTRUCTION, FOUNDATIONS AND HAUNCHING TO BE GIVEN ADEQUATE TIME TO STRENGTHEN PRIOR TO HIGHWAY TRAFFICKING.
- PRE CAST RADIUS KERBS SHOULD BE USED ON ALL RADII UP TO 15m.
- WORKS SHOULD BE PROGRAMMED BY THE CONTRACTOR TO ENSURE THAT NO TRAFFICKING OF PAVEMENTS BY CONSTRUCTION TRAFFIC OCCURS, OTHER THAN THAT PREVIOUSLY AGREED UPON BY THE ENGINEER.
- VERTICAL EDGES OF MANHOLES, GULLIES, KERBS AND OTHER ABUTMENTS CLEAN AND PAINT WITH A THIN UNIFORM COATING OF COLD APPLIED THIXOTROPIC BITUMEN EMULSION, TAMP SURFACE AROUND PROJECTIONS. LEVEL FLUSH OR NOT MORE THAN 3mm ABOVE PROJECTIONS.

- CONTRACTOR SHALL ALLOW FOR THE PROTECTION AND ADOPTING WATER AND SEWER NETWORKS.
- THE CONTRACTOR SHALL ALLOW FOR KEEPING SEWER TRENCHES AND EXCAVATIONS AS DRY AS PRACTICABLE BY PUMPING FROM TEMPORARY SUMPS AND DEWATERING AS APPROPRIATE. THE POINT AND METHOD OF DISCHARGE TO BE AGREED WITH THE DRAINAGE AUTHORITY.
- PIPES UP TO AND INCLUDING 225mmØ TO BE EXTRA STRENGTH V CLAY OR UNPLASTICISED PVC VITRIFIED CLAY PIPES AND FITTINGS SHALL COMPLY WITH THE RELEVANT PROVISIONS OF BS EN295 AND BS 65 RESPECTIVELY. PIPES 300mmØ AND GREATER TO BE CONCRETE CLASS H.
- VITRIFIED CLAY PIPES AND FITTINGS SHALL COMPLY WITH THE RELEVANT PROVISIONS OF BS EN295 AND BS 65 RESPECTIVELY AND BE KITEMARKED. ALL PIPES SHALL BE EXTRA STRENGTH TO BS 65 OR EQUIVALENT BS EN 295 PIPE CRUSHING STRENGTH.
- INSITU AND PRECAST CONCRETE UNITS SHALL HAVE SULPHATE RESISTING PORTLAND CEMENT TO BS 4027, UNLESS AGREED OTHERWISE WITH THE ADOPTING AUTHORITY.
- PRECAST CONCRETE PRODUCTS SHALL COMPLY WITH THE RELEVANT PROVISIONS OF BS 5911 AND BE KITEMARKED. CONCRETE PIPES TO BE CLASS H UNLESS NOTED OTHERWISE.
- MANHOLE COVERS AND FRAMES SHALL COMPLY WITH THE RELEVANT PROVISIONS OF BS EN124. HAVE MINIMUM 675x675 CLEAR OPENINGS WITH 150 DEEP FRAMES UNLESS OTHERWISE SPECIFIED. MANHOLE COVERS AND FRAMES TO BE NON-ROCKING DESIGN WITHOUT CUSHION INSERTS AND BE KITEMARKED. LOAD CLASS D400 IN VEHICULAR TRAFFICKED AREAS AND LOAD CLASS B125 IN FOOTWAYS AND PEDESTRIAN AREAS.
- GULLY GRATES AND FRAMES SHALL COMPLY WITH THE RELEVANT PROVISIONS OF BS EN124 AND BE OF A NON-ROCKING DESIGN WITH CAPTIVE HINGE ACCESS AND BE KITEMARKED. LOAD CLASS D400 FOR ROADS REGULARLY CARRYING FAST MOVING HEAVY VEHICLES. CLASS C250 TO BE USED IN LESSER TRAFFICKED AREAS eg. ESTATE ROADS, CUL-DE-SACS, RESIDENTIAL CAR PARKING AREAS ETC.
- CLASS Z BEDDING DETAIL SHALL BE PROVIDED WHERE COVER TO THE PIPE BARREL IS LESS THAN 1.2m IN VEHICULAR TRAFFICKED AREAS AND 0.9m ELSEWHERE. TO ALL ROAD GULLY CONNECTIONS AND WITHIN AREAS OF DEEP ROOTING VEGETATION.
- WHERE CLASS Z TRENCH BEDDING DETAIL IS USED, THE CONCRETE BED AND SURROUND SHALL BE DISCOUNTED AT EACH PIPE JOINT OVER THE FULL CROSS SECTION BY MEANS OF A SHAPED COMPRESSIBLE FILLER.
- SELECTED BACKFILL MATERIAL SHALL CONSIST OF UNIFORMED MATERIAL FREE FROM STONES LARGER THAN 40mm, CLAY LUMPS LARGER THAN 75mm, TREE ROOTS ORGANIC MATTER AND FROZEN SOIL. SELECTED BACKFILL MATERIAL SHALL BE PLACED IN LAYERS NOT EXCEEDING 225mm. EACH LAYER COMPACTED TO FORM A STABLE TRENCH BACKFILL.



**TYPICAL RETAINING WALL SECTION (MAX. 600)**  
SCALE 1:20



**VALET BAY STEP DETAIL**  
SCALE 1:20

**DRAINAGE NOTES:**

- ALL DRAINAGE WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH THE WATER SERVICES ASSOCIATION 'SEWERS FOR ADOPTION' CURRENT EDITION AND ADOPTING WATER AND SEWER NETWORKS.
- POSITION SIZE AND DEPTH OF ALL EXISTING SEWERS AND SERVICES SHALL BE ESTABLISHED BY MAIN CONTRACTOR PRIOR TO COMMENCEMENT ON SITE.
- THE CONTRACTOR SHALL ALLOW FOR THE PROTECTION AND ADOPTING WATER AND SEWER NETWORKS.
- THE CONTRACTOR SHALL ALLOW FOR ALL TRAFFIC MANAGEMENT IN CONNECTION WITH ROAD AND SEWER NETWORKS.
- THE CONTRACTOR SHALL ALLOW FOR KEEPING SEWER TRENCHES AND EXCAVATIONS AS DRY AS PRACTICABLE BY PUMPING FROM TEMPORARY SUMPS AND DEWATERING AS APPROPRIATE. THE POINT AND METHOD OF DISCHARGE TO BE AGREED WITH THE DRAINAGE AUTHORITY.
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**PIPES & CABLES**

- SERVICE RECORDS TO BE REFERRED TO PRIOR TO WORK COMMENCING. CONTRACTOR TO PROCEED WITH CAUTION AND SERVICES TO BE LOCATED BY HAND DIG AND PROTECTED ACCORDINGLY.

**EXCAVATION/FILL**

- CONTRACTOR TO ENSURE RELEVANT MEASURES ARE TAKEN TO KEEP PLANT AND PEOPLE A SAFE DISTANCE FROM STEEP SLOPES DURING THE WORKS.
- CONTRACTOR TO ENSURE THAT PROCEDURES ARE IN PLACE TO KEEP PEOPLE A SAFE DISTANCE FROM WORKING PLANT WHERE NECESSARY.
- CONTRACTOR TO REFER TO GROUND INVESTIGATION AND REPORT FOR CONTAMINATION TESTS AND TO PROVIDE ADEQUATE WELFARE FACILITIES AND PROTECTIVE CLOTHING AS REQUIRED.

**ROADS & DRAINAGE**

- CONTRACTOR TO PROVIDE TRENCH SUPPORTS AS APPROPRIATE AND ENSURE THAT PLANT REMAINS A SAFE DISTANCE FROM TRENCHES PRIOR TO INSTALLING DRAINAGE.
- THE TIME THAT EXCAVATIONS ARE OPEN ON SITE SHOULD BE KEPT TO A MINIMUM AND ALL TRENCHES SHOULD BE SURROUNDED BY A BARRIER.
- CONTRACTOR TO TAKE MEASURES TO PROTECT HIS OPERATIVES WITH RESPECT TO THE PRESENCE OF GAS IN SEWER TRENCHES AND MANHOLES THROUGH THE USE OF GAS MONITORING EQUIPMENT AND BREATHING APPARATUS AS REQUIRED.
- CONNECTIONS TO EXISTING SEWERS TO BE MADE BY NWL APPROVED CONTRACTOR ONLY.
- CONTRACTOR TO MAKE OPERATIVES AWARE OF ASSOCIATED DANGERS TO HEALTH SUCH AS LEPTOSPIRITIS (WELLS DISEASE) AND RECOMMENDED PRECAUTIONS, ADEQUATE WELFARE FACILITIES AND PROTECTIVE CLOTHING TO BE PROVIDED AS REQUIRED.
- UNFINISHED MANHOLES MUST BE COVERED WITH LOAD BEARING MATERIALS AND SURROUNDED WITH A BARRIER.

**HEALTH & SAFETY**

- CONTRACTOR SHOULD BE AWARE OF GENERAL CONSTRUCTION RISKS TO PREVENT SLIPS, TRIPS AND FALLS AND TAKE NECESSARY PRECAUTIONS WITHOUT SPECIAL INSTRUCTION.

**REVISIONS**

Revision	Date	Drawn	Description
P1	21/03/24	JL	Issued for planning.

**Client & Project**

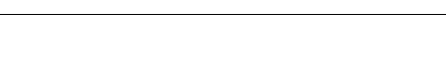
**Vertu Motors**  
Vertu Toyota Chestfield

**Address**  
**Vertu Toyota Chestfield**  
2 Lockford Lane,  
Sheffield Road,  
Chestfield,  
S41 7HY

**Proposed Construction Details**

Status / Stage	Sheet	Scale @ A1	Drawn	Checked
S2	1 of 1	As Indicated	JDL	AW

Drawing Number: S4461-BDN-XX-XX-DR-C-0200  
Revision: P1



Do not scale from drawings unless by agreement with Architect/Engineer. Work to figured dimensions only. Check all dimensions on site prior to commencing the works. Drawings to be read in conjunction with other relevant consultant information. Where any discrepancy is found to exist it should be reported to the Architect/Engineer immediately.

- BACKFILL TO DRAINAGE TRENCHES IN HARD PAVED AREAS SHALL BE G.S.B TYPE 1.
- ALL RW DOWNCOMERS TO DISCHARGE TO TRAPPED GULLIES.
- ALL ROAD GULLIES ARE TO BE TRAPPED GULLIES.
- ALL GULLY LEADS TO BE 150mm DIAMETER.
- ALL REDUNDANT EXISTING DRAINAGE TO BE GRUBBED UP OR GROUTED, ANY EXISTING LIVE DRAINAGE SHOULD BE REPORTED TO THE ENGINEER AND RECONNECTED.
- ALL ROAD GULLIES & LEADS TO BE CLEARED OF DEBRIS UPON COMPLETION OF WORKS.
- ANY EXISTING DRAINAGE WHICH BECOMES UNDER TRAFFICKED AREAS IN THE NEW SCHEME SHOULD BE SUBJECT TO THE FOLLOWING REMEDIAL/REVISIONS, WHERE DEPTH OF COVER IS LESS THAN 120mm, THE EXISTING DRAINAGE SHALL BE EXPOSED & SURROUNDED WITH 150mm CONCRETE AS CLASS 'X' BEDDING, WHERE THE EXISTING MANHOLE COVER & FRAME IS NOT AS MANHOLE DETAIL A OR B, OR TO BS407 GRADE A, OR EN124 CLASS D, THEN IT SHOULD BE CHANGED FOR SUCH.
- THE CONTRACTOR MUST ENSURE THAT ANY OF THE EXISTING DRAINAGE WHICH IS KEPT IS KEPT CLEAR OF DEBRIS AND SHOULD ALLOW FOR JETTING THROUGH THE NEW & EXISTING DRAINAGE UPON COMPLETION.
- CONTRACTOR TO TAKE MEASURES TO PROTECT HIS OPERATIVES WITH RESPECT TO THE PRESENCE OF GAS IN SEWER TRENCHES AND MANHOLES THROUGH THE USE OF GAS MONITORING EQUIPMENT AND BREATHING APPARATUS AS REQUIRED.
- CONTRACTOR TO APPLY FOR SEWER PERMITS AND ROAD OPENING PERMITS AS NECESSARY FROM THE APPROPRIATE AUTHORITIES, PRIOR TO COMMENCING WORKS.

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