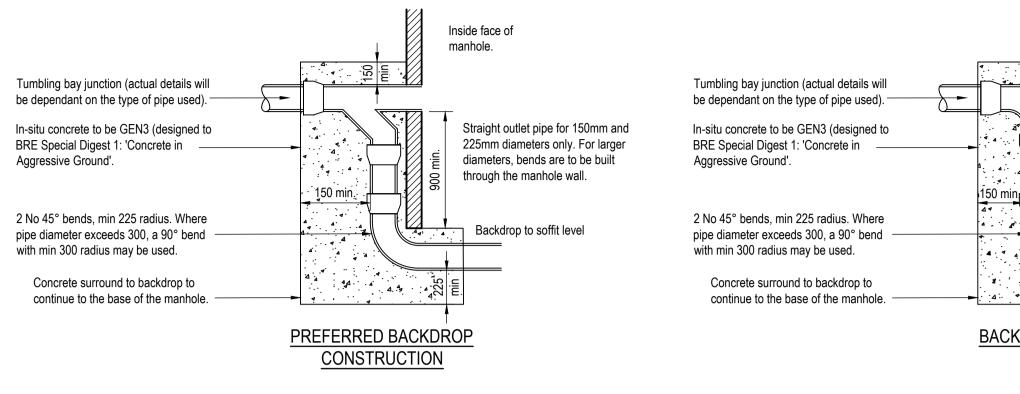
BACKDROP DETAILS



SHALLOW MANHOLE DETAIL

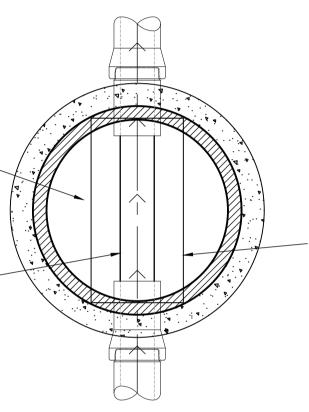
D400 Ductile iron cover & frame to BS. EN 124 with 150mm deep frame in the — highway having 1220mm x 610mm double twin opening directly over the channel.		Minimum 2, maximum 4 courses of Class B Engineering brick (solid), concrete blocks or precast concrete	
Mortar haunching to M.H. cover and		cover frame seating ring.	
frame Refer to Clause E6.7. Where		Heavy duty precast concrete cover slab	
manholes are located in highway. Mortar haunch is to stop 100mm below cover		(B.S. 5911) Kitemarked and bedded	
level.		with 10th. mortar, proprietary bitumen or	High strength concrete topping to be brought
		7. à. 1	up to a dense smooth face neatly shaped and finished to all branch connections (minimum
High strength concrete topping to be			thickness 20mm). Gradient to be 1:10 - 1:30.
brought up to a dense smooth face neatly		Digest 1 Concrete in	,
shaped and finished to all branch		Aggressive Ground).	
connections (min. thickness 20mm).			
Gradient to be 1:10 - 1:30.		225mm to barrel of pipe.	Inverts to be formed using clay channel pieces.
Inverts formed using — clay channel pipes.	SECTION VIEW		

Inside face of manhole. Inside face of manhole. Straight outlet pipe for 150mm and 225mm diameters only. For larger diameters, bends are to be built through the manhole wall. Backdrop to soffit level

Backdrop to be within the 150mm concrete surround to the manhole.

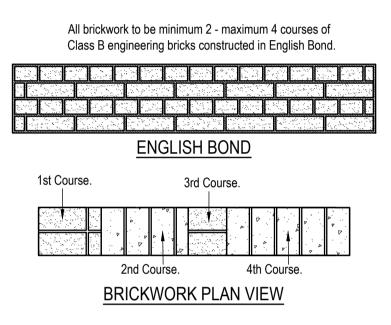
BACKDROP PLAN VIEW

SHALLOW MANHOLE PLAN VIEW



D400 Ductile iron cover & frame to BS. EN 124 with 150mm deep frame in highway having 1220mm x 610mm double twin opening directly over the channel.

BRICKWORK DETAIL



All pipes shall be either: - Vitrified clay to BS EN 295 with a minimum crushir 150 dia 40 kN/m 225 dia 45 kN/m 300 dia 72 kN/m - PVC (certified to WIS 4-35-01 & BS/EN 13476) - Class 120 concrete to BS 5911-1:2002/EN 1916. All pipes should always connect soffit to soffit unless All sewers to have BSI kitemark status (certified to W ength to be 3m. Plastic channel sections in manhole shall be used. Sewers to be laid in Class "S" Bedding (150mm gran cover to top of the sewer is less than 1.2m in highwa vehicular access areas) then a concrete slab should Manhole covers shall/must have a clear opening of 6 with 150 deep frames in highways. Pipes entering manholes and road gullies shall have manhole or gully joining with a short Rocker pipe. The adoptable sewers should be a minimum of 1m a service margins. Sewers must have 5m clearance from trees and hed All trenches in roads and paved areas shall be back	s noted otherwise. VIS 4-35-01 & BS E es are not acceptab nular bed and surro ays and verges (or l be provide above g 500 and shall be cla a flexible joint with	EN 134 le, Clay und). V ess tha granula ass D40	y chanr Vhere d in 900n r bed a 00 to BS	nel sections lepth of nm in none and surroun	
225 dia 45 kN/m 300 dia 72 kN/m - PVC (certified to WIS 4-35-01 & BS/EN 13476) - Class 120 concrete to BS 5911-1:2002/EN 1916. All pipes should always connect soffit to soffit unless All sewers to have BSI kitemark status (certified to W ength to be 3m. Plastic channel sections in manhole shall be used. Sewers to be laid in Class "S" Bedding (150mm gran cover to top of the sewer is less than 1.2m in highwa vehicular access areas) then a concrete slab should Manhole covers shall/must have a clear opening of 6 with 150 deep frames in highways. Pipes entering manholes and road gullies shall have manhole or gully joining with a short Rocker pipe. The adoptable sewers should be a minimum of 1m a service margins. Sewers must have 5m clearance from trees and hed All trenches in roads and paved areas shall be back	VIS 4-35-01 & BS E as are not acceptab nular bed and surro ays and verges (or l be provide above (500 and shall be cla a flexible joint with	le, Clay und). V ess tha granula ass D40	y chanr Vhere d in 900n r bed a 00 to BS	nel sections lepth of nm in none and surroun	
 Class 120 concrete to BS 5911-1:2002/EN 1916. All pipes should always connect soffit to soffit unless All sewers to have BSI kitemark status (certified to V ength to be 3m. Plastic channel sections in manhole shall be used. Sewers to be laid in Class "S" Bedding (150mm gran cover to top of the sewer is less than 1.2m in highway rehicular access areas) then a concrete slab should Manhole covers shall/must have a clear opening of 6 with 150 deep frames in highways. Pipes entering manholes and road gullies shall have nanhole or gully joining with a short Rocker pipe. The adoptable sewers should be a minimum of 1m a service margins. Sewers must have 5m clearance from trees and hed All trenches in roads and paved areas shall be back 	VIS 4-35-01 & BS E as are not acceptab nular bed and surro ays and verges (or l be provide above (500 and shall be cla a flexible joint with	le, Clay und). V ess tha granula ass D40	y chanr Vhere d in 900n r bed a 00 to BS	nel sections lepth of nm in none and surroun	
All sewers to have BSI kitemark status (certified to W ength to be 3m. Plastic channel sections in manhole shall be used. Sewers to be laid in Class "S" Bedding (150mm gran cover to top of the sewer is less than 1.2m in highwa vehicular access areas) then a concrete slab should Manhole covers shall/must have a clear opening of 6 with 150 deep frames in highways. Pipes entering manholes and road gullies shall have manhole or gully joining with a short Rocker pipe. The adoptable sewers should be a minimum of 1m a service margins. Sewers must have 5m clearance from trees and hed All trenches in roads and paved areas shall be back	VIS 4-35-01 & BS E as are not acceptab nular bed and surro ays and verges (or l be provide above (500 and shall be cla a flexible joint with	le, Clay und). V ess tha granula ass D40	y chanr Vhere d in 900n r bed a 00 to BS	nel sections lepth of nm in none and surroun	
Shall be used. Sewers to be laid in Class "S" Bedding (150mm gran cover to top of the sewer is less than 1.2m in highwa vehicular access areas) then a concrete slab should Manhole covers shall/must have a clear opening of 6 with 150 deep frames in highways. Pipes entering manholes and road gullies shall have nanhole or gully joining with a short Rocker pipe. The adoptable sewers should be a minimum of 1m a service margins. Sewers must have 5m clearance from trees and hed All trenches in roads and paved areas shall be back	nular bed and surro ays and verges (or l be provide above 500 and shall be cla a flexible joint with	und). V ess tha granula ass D40	Vhere d in 900n r bed a 00 to B\$	lepth of nm in none and surroun	
cover to top of the sewer is less than 1.2m in highwa vehicular access areas) then a concrete slab should Manhole covers shall/must have a clear opening of 6 with 150 deep frames in highways. Pipes entering manholes and road gullies shall have nanhole or gully joining with a short Rocker pipe. The adoptable sewers should be a minimum of 1m a service margins. Sewers must have 5m clearance from trees and hed All trenches in roads and paved areas shall be back	ays and verges (or l be provide above g 500 and shall be cla a flexible joint with	ess tha granula ass D40	n 900n r bed a 00 to BS	nm in none and surrour	
with 150 deep frames in highways. Pipes entering manholes and road gullies shall have manhole or gully joining with a short Rocker pipe. The adoptable sewers should be a minimum of 1m a service margins. Sewers must have 5m clearance from trees and hed All trenches in roads and paved areas shall be back	a flexible joint with			S EN 124	
nanhole or gully joining with a short Rocker pipe. The adoptable sewers should be a minimum of 1m a service margins. Sewers must have 5m clearance from trees and hed All trenches in roads and paved areas shall be back		in 600	of the i		
service margins. Sewers must have 5m clearance from trees and hed All trenches in roads and paved areas shall be back	and manholes 0.5m			nside the	
All trenches in roads and paved areas shall be back		from k	erb fac	es and	
	-	OT ora	anular s	sub-base	
naterial, or other granular material approved by the Fill ground must be filled and consolidated under the	highway authority.	-			
Yorkshire Water before any sewer works are carried	out.				
The invert levels at the proposed points of connectio	on to existing public	sewers	s shall I	be checked	
before any new drains are constructed. Any variation to the levels shown on the drawing shall be notified to Eastwood & Partners. The chamber size of manholes with more than one connection in them may need to be increase					
an increment to accommodate the connections and bends. Cover levels are indicative only. Covers to be set to suit camber/gradient of existing and propose					
roads. Cover slabs must carry the BSI Kitemark or will be rejected by Yorkshire Water Inspector. Where					
he clear opening of the Kitemarked product is difference bearing slab should be fitted above the cover slab to he Yorkshire Water specified cover size. Please refe	ent to that of the co bring the size dow er to Concrete Pipe	ver and n to 60 Syster	l frame 0mm x ns Ass	e, a loading 600mm fo ociation	
All foul lateral sewers and drains to be 150Ø unless	noted otherwise.				
preferred. Instead it is preferred that you use a type '	"B" manhole with 1	200mm	dia or	1500mm c	
Manhole covers shall/must have a clear opening of 600mm and shall be Class D400 to BS EN 124 with 150mm deep frames in highways.					
Where a B125 cover and frame has been approved, this must not be coated in plastic and must have lifting eyes suitably sized to accommodate standard lifting keys. Screw down covers are no acceptable.					
Relevant British/European and Yorkshire Water's Sta	andards/Requireme				
network or adoptable drainage system (directly or in- of the land drainage run-off will therefore be required Authority, Land Drainage Section with regard to the	-directly). An alterna d and you will have	ative m to liaise	ethod o e with t	of disposal he Local	
Sulphate resistant cement (C20-DC2) and precast co			used o	ra	
Bedding and backfill material to conform to the requi		-	Specific	cation	
Adoptable plastic sewer pipes to be BSI Kitemarked 3S/EN13476).Adoptable plastic sewer pipes to be la s a specific operational need to lay longer lengths. F acceptable and Yorkshire Water would prefer claywa plastic channels are difficult to set in concrete becau	id in maximum 3 m Plastic channel sect are channel in man	ietre ler ions in holes. \	ngths u manho Ne hav	oles are not re found that	
ising main and other services should be sufficient cl					
	ted otherwise				
First Issue.		GH	СНК	31.03.23 DATE	
TER TE OR OTET(A NER NI NEE AEN NROAR SU EA AENSEE TRO A	The invert levels at the proposed points of connection before any new drains are constructed. Any variation notified to Eastwood & Partners. The chamber size of manholes with more than one of an increment to accommodate the connections and Cover levels are indicative only. Covers to be set to roads. Cover slabs must carry the BSI Kitemark or will be not the clear opening of the Kitemarked product is differ bearing slab should be fitted above the cover slab to the Yorkshire Water specified cover size. Please ref (CPSA), 'Technical Bulletin' issued Autumn 2004 for All foul lateral sewers and drains to be 150Ø unless Yorkshire Water policy is that Type "C" brick manhol preferred. Instead it is preferred that you use a type rings, with the opening sited over the channel where Manhole covers shall/must have a clear opening of the 24 with 150mm deep frames in highways. Where a B125 cover and frame has been approved, have lifting eyes suitably sized to accommodate star acceptable. All adoptable sewer works and material to be in accc Relevant British/European and Yorkshire Water's St Mechanical and Electrical Specification and Kitemar Yorkshire Water is not obliged to accept filter drain/linetwork or adoptable drainage system (directly or in of the land drainage run-off will therefore be required Authority, Land Drainage Section with regard to the run-off. Sulphate resistant cement (C20-DC2) and precast c laboratory report provided proving that such precaut Bedding and backfill material to conform to the required Authority, Cable A2). Adoptable plastic sewer pipes to be BSI Kitemarked BS/EN13476).Adoptable plastic sever pipes to be las is a specific operational need to lay longer lengths. Fa superific opera	The invert levels at the proposed points of connection to existing public before any new drains are constructed. Any variation to the levels show notified to Eastwood & Partners. The chamber size of manholes with more than one connection in them an increment to accommodate the connections and bends. Cover levels are indicative only. Covers to be set to suit camber/gradies roads. Cover slabs must carry the BSI Kitemark or will be rejected by Yorkshir the clear opening of the Kitemarked product is different to that of the cobearing slab should be fitted above the cover slab to bring the size dow the Yorkshire Water specified cover size. Please refer to Concrete Pipe (CPSA), 'Technical Bulletin' issued Auturn 2004 for Kitemarked cover : All foul lateral sewers and drains to be 150Ø unless noted otherwise. Yorkshire Water policy is that Type "C" brick manholes and 1050mm di prefered. Instead it is preferred that you use a type "B" manhole with 1 rings, with the opening sited over the channel where depth of cover to p Manhole covers shall/must have a clear opening of 600mm and shall be 124 with 150mm deep frames in highways. Where a B125 cover and frame has been approved, this must not be core have lifting eyes suitably sized to accommodate standard lifting keys. S acceptable. All adoptable sewer works and material to be in accordance with "Code Relevant British/European and Yorkshire Water's Standards/Requirement of the land drainage run-off will therefore be required and you will have Authority, Land Drainage Section with regard to the disposal of the filter un-off. Sulphate resistant cement (C20-DC2) and precast concrete products m laboratory report provided proving that such precautions are not necess Bedding and backfill material to conform to the requirement of Water In 4-08-02 (Table A2). Adoptable plastic sever pipes to be BSI Kitemarked (certified to WIS 4-BS/EN13476).Adoptable plastic were pipes to be laid in maximum 3 m is a specific operational need to lay longer leaghen. Plastic channel sed acceptable a	The invert levels at the proposed points of connection to existing public severs holfore any new drains are constructed. Any variation to the levels shown on the notified to Eastwood & Partners. The chamber size of manholes with more than one connection in them may ne an increment to accommodate the connections and bends. Cover levels are indicative only. Covers to be set to suit camber/gradient of ex roads. Cover levels are indicative only. Covers to be set to suit camber/gradient of ex roads. Cover shalss must carry the BSI Kitemark or will be rejected by Yorkshire Water the clear opening of the Kitemarked product is different to that of the cover and bearing slab should be fitted above the cover slab to bring the size down to 60 the Yorkshire Water specified cover size. Please refer to Concrete Pipe Syster (CPSA), Technical Bulletin' issued Autumn 2004 for Kitemarked cover slab op AII foul lateral severs and drains to be 150Ø unless noted otherwise. Yorkshire Water policy is that Type "C" brick manholes and 1050mm dia manh preferred. Instead it is preferred that you use a type "B" manhole with 1200mm rings, with the opening sited over the channel where depth of cover to pipe soft Manhole covers shall/must have a clear opening of 600mm and shall be Class 124 with 150mm deep frames in highways. Where a B125 cover and frame has been approved, this must not be coated in have lifting eyes suitably sized to accordance with "Code for Add Mechanical and Electrical Specification and Kitemarked. Yorkshire Water is not obliged to accept filter drain/land drainage run-off into the thetwork or adoptable drainage system (directly or in-directly). An alternative mo of the land drainage sun-off will therefore be required and you will have to lias acceptable. Sulphate resistant cement (C20-DC2) and precast concrete products must be laboratory report provided proving that such precautions are not necessary. Bedding and backfill material to conform to the requirement of Water Industry 54-08-02 (Table A2). Adoptable plastic sew	notified to Eastwood & Partners. The chamber size of manholes with more than one connection in them may need to be an increment to accommodate the connections and bends. Cover levels are indicative only. Covers to be set to suit camber/gradient of existing a roads. Cover slabs must carry the BSI Kitemark or will be rejected by Yorkshire Water Inspethe clear opening of the Kitemarked product is different to that of the cover and frame bearing slab should be fitted above the cover slab to bring the size down to 600mm x the Yorkshire Water specified cover size. Please refer to Concrete Pipe Systems Ass (CPSA), "Technical Bulletin' issued Autumn 2004 for Kitemarked cover slab opening site (CPSA)," Technical Bulletin' issued Autumn 2004 for Kitemarked cover to size specified to accert the to use a type "B" manhole with 1200mm dia or rings, with the opening sited over the channel where depth of cover to pipe soffit is 1 - Manhole covers shall/must have a clear opening of 600mm and shall be Class D400 I 124 with 150mm deep frames in highways. Where a B125 cover and frame has been approved, this must not be coated in plastic have lifting eyes suitably sized to accommodate standard lifting keys. Screw down co acceptable. All doptable sewer works and material to be in accordance with "Code for Adoption" Relevant British/European and Yorkshire Water's Standards/Requirements/Addendur Mechanical and Electrical Specification and Kitemarked. Yorkshire Water is not obliged to accept filter drain/land drainage run-off into the puble drainage system (directly or in-directly). An alternative method of the land drainage run-off will therefore be required and you will have to liaise with t Authority. Land Drainage Section with regart to the disposal of the filter drain/land frains/land frains/land fra	

ECE PROJECT No SCALE AT A1 STATUS SUITABLE FOR

DRAWING NUMBER

47509 - ECE - XX - XX - DR - C - **0027** P01 Project Originator Zone Level Type Role Number

REV

47509 NTS SO Initial