

CHAPTER NO. 20

OUTLETS

Notes :-

- (i) The term "discharge" wherever used in this Chapter means designed full supply discharge of the parent channel opposite the outlet.
- (ii) The labour rates include the rehandling of materials within 100 ms.
- (iii) For outlets on lined canals, the basic rate will be 20% extra over and above the rate for katcha canal.

| Sr. No. | Description | Unit | Plains | | Sub-Mountainous Region | |
|---------|---|------|-------------|--------------|------------------------|--------------|
| | | | Labour Rate | Through Rate | Labour Rate | Through Rate |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 20.1 | Earth work for outlets :- | | | | | |
| (a) | Earth work for dismantling or construction of new pipe or barrel type outlets (including excavation refilling, consolidation and dressing) :- | | | | | |
| (i) | Channel discharge upto 1.5 cum per second. | job | 227.36 | - | 227.36 | - |
| (ii) | Channel discharge exceeding 1.5 cum/s. but upto 3 cum/s | job | 362.22 | - | 362.22 | - |
| (iii) | Channel discharge exceeding 3 cum/s. but upto 6 cum/s | job | 567.66 | - | 567.66 | - |
| (iv) | Channel discharge exceeding 6 cum/s. but upto 10 cum/s | job | 896.06 | - | 896.06 | - |
| Note :- | Channels with discharge over 10 cum/s are classified as branches and therefore their payments should be made based on actual measurements. | | | | | |
| (b) | Earth work involved in dismantling open flume A.P.M. or O.S.M. type outlets (including excavation, refilling, consolidation and dressing) | | | | | |
| (i) | With 'H' upto 0.5m | job | 227.36 | - | 227.36 | - |
| (ii) | With 'H' more than 0.5m but upto 0.9m | job | 567.66 | - | 567.66 | - |
| (iii) | With 'H' more than 0.9m but upto 1.10m | job | 896.06 | - | 896.06 | - |
| (c) | Earth work involved in dismantling gullet walls of outlets for adjusting 'Y' of A.P.M. or 'B' of open flume outlets :- | | | | | |
| (i) | With 'H' upto 0.5m | job | 67.77 | - | 67.77 | - |

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|---------|--|------|-------------|--------------|------------------------|--------------|
| | | | Labour Rate | Through Rate | Labour Rate | Through Rate |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| | (ii) With 'H' more than 0.5m but upto 0.9m | job | 211.77 | - | 211.77 | - |
| | (iii) With 'H' more than 0.9m but upto 1.10m | job | 338.83 | - | 338.83 | - |
| (d) | Earth work involved in constructing new O.F., A.P.M. or O.S.M. type outlets :- | | | | | |
| | (i) With 'H' upto 0.5m | job | 677.67 | - | 677.67 | - |
| | (ii) With 'H' more than 0.5m but upto 0.9m | job | 1312.98 | - | 1312.98 | - |
| | (iii) With 'H' more than 0.9m but upto 1.10m | job | 1948.29 | - | 1948.29 | - |
| Note :- | (i) Outlets with 'H' more than 1.10m will usually be located in main canal and branches, payment for these should be based on actual measurements. | | | | | |
| | (ii) In case of dismantling, all earth work borrowed from outside for making up the deficiency in banks, if any, will be paid for separately in addition to above rates. | | | | | |
| | (iii) The job rates given above include all operations for excavation, refilling and watering in layers, consolidation and dressing. | | | | | |
| 20.2 | Dismantling outlets including removal of dismantled material involving lead upto 100 ms. | | | | | |
| | (a) Pipe or barrel type outlets. | | | | | |
| | (i) Channel discharge upto 1.5 cum/s | each | 211.77 | - | 211.77 | - |
| | (ii) Channel discharge above 1.5 cum/s but upto 3 cum/s | each | 282.36 | - | 282.36 | - |
| | (iii) Channel discharge above 3 cum/s but upto 6 cum/s | each | 317.66 | - | 317.66 | - |
| | (iv) Channel discharge above 6 cum/s but upto 10 cum/s | each | 338.83 | - | 338.83 | - |
| | (b) Dismantling O.F., A.P.M. or O.S.M. type outlets consisting of total dismantling i.e., concrete R.C. slab and cement masonry. | | | | | |
| | (i) With 'H' upto 0.5m | job | 1185.92 | - | 1185.92 | - |

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|---------|--|------|-------------|--------------|------------------------|--------------|
| | | | Labour Rate | Through Rate | Labour Rate | Through Rate |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| | (ii) With 'H' more than 0.5m but upto 0.9m | job | 2287.12 | - | 2287.12 | - |
| | (iii) With 'H' more than 0.9m but upto 1.10m | job | 3388.33 | - | 3388.33 | - |
| | (c) Dismantling O.F., A.P.M. or O.S.M. type outlets involving dismantling cement masonry and removing of precast R.C. Slab :- | | | | | |
| | (i) With 'H' upto 0.5m | job | 847.08 | - | 847.08 | - |
| | (ii) With 'H' more than 0.5m but upto 0.9m | job | 1821.23 | - | 1821.23 | - |
| | (iii) With 'H' more than 0.9m but upto 1.10m | job | 2795.37 | - | 2795.37 | - |
| | (d) Dismantling tail cluster bifurcation :- | | | | | |
| | (i) Complete dismantling including concrete and masonry. | job | 2033.00 | - | 2033.00 | - |
| | (ii) Cement masonry only. | job | 1482.39 | - | 1482.39 | - |
| | (e) Dismantling tail cluster trifurcation :- | | | | | |
| | (i) Complete dismantling concrete as well as masonry. | job | 2837.73 | - | 2837.73 | - |
| | (ii) Cement masonry only. | job | 2033.00 | - | 2033.00 | - |
| | (f) Dismantling tail cluster quadrifurcation:- | | | | | |
| | (i) Complete dismantling concrete as well as masonry. | job | 3684.81 | - | 3684.81 | - |
| | (ii) Cement masonry only. | job | 2668.31 | - | 2668.31 | - |
| 20.3 | Making temporary A.P.M. block and fixing at site :- | | | | | |
| | (a) In case of new outlets where no dismantling and reconstructing of gullet walls is involved. | job | 157.02 | 278.49 | 157.02 | 278.49 |
| | (b) Extra for dismantling and reconstructing gullet walls where temporary A.P.M. block is to be fixed on existing outlet, without change in width of gullet i.e. 'B' | | | | | |
| | (i) With 'H' upto 0.5m | job | 206.64 | 569.37 | 206.64 | 569.37 |

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|---------|---|------|------------------------------|--------------|------------------------------|--------------|
| | | | Labour Rate | Through Rate | Labour Rate | Through Rate |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| | (ii) With 'H' more than 0.5m but upto 0.9m | job | 291.39 | 910.17 | 291.39 | 910.17 |
| | (iii) With 'H' more than 0.9m but upto 1.10m | job | 421.48 | 1217.36 | 421.48 | 1217.36 |
| | (c) Extra over item No. 20.3 (a) in case of old outlets where dismantling and reconstructing of gullet walls is involved including change in width of gullet i.e., 'B' of the outlet upto 30 mm | | | | | |
| | (i) H' upto 0.5m | job | 283.65 | 859.76 | 283.65 | 859.76 |
| | (ii) H' more than 0.5m but upto 0.9m | job | 494.16 | 1627.80 | 494.16 | 1627.80 |
| | (iii) H' more than 0.9m but upto 1.10m | job | 735.27 | 2391.68 | 735.27 | 2391.68 |
| 20.4 | Adjusting A.P.M to the correct 'Y' and fixing in position. | | | | | |
| | (a) In case of new outlets where no dismantling and reconstructing of gullet walls is involved. | job | 100.00 | - | 100.00 | - |
| | (b) Extra over item No. 20.4 (a) in case of outlets where dismantling and reconstructing of gullet walls is involved without change in width of gullet i.e., 'B' of the outlet | job | Same as for item No. 20.3(b) | - | Same as for item No. 20.3(b) | - |
| | (c) Extra over item No. 20.4 (a) in case of old outlets where dismantling and reconstructing of gullet walls is involved including change in width of gullet i.e., 'B' of the outlet upto 30 mm | job | Same as for item No. 20.3(c) | - | Same as for item No. 20.3(c) | - |
| 20.5 | Adjusting check plates of open flume outlet to correct 'B' and fixing at site flush with the gullet walls :- | | | | | |
| | (a) In case of new outlets where no dismantling and reconstructing of gullet walls is involved. | job | 100.00 | - | 100.00 | - |
| | (b) Extra over item No. 20.5 (a) in case of old outlets where dismantling and reconstructing of gullet walls is involved without change in width of gullet walls i.e., 'B' of the outlet | job | Same as for item No. 20.3(b) | - | Same as for item No. 20.3(b) | - |

| Sr. No. | Description | | Unit | Plains | | Sub-Mountainous Region | |
|---------|-------------|---|------|-------------|--------------|------------------------|--------------|
| | | | | Labour Rate | Through Rate | Labour Rate | Through Rate |
| 1 | 2 | | 3 | 4 | 5 | 6 | 7 |
| | (c) | Extra over item No. 20.5 (a) in case of existing outlets where dismantling and reconstructing side walls is involved including change of 'B' upto 30 mm | | | | | |
| | (i) | H' upto 0.5m | job | 322.37 | 941.15 | 322.37 | 941.15 |
| | (ii) | H' more than 0.5m but upto 0.9m | job | 610.25 | 1997.17 | 610.25 | 1997.17 |
| | (iii) | H' more than 0.9m but upto 1.10m | job | 870.67 | 2925.45 | 870.67 | 2925.45 |
| Note :- | (i) | In case change in 'B' is more than 30mm curved approach shall have to be dismantled considerably and therefore payment may be made on the basis of the actual measurements. | | | | | |
| | (ii) | Rates for adjusting 'B' of an open flume outlet without check plates will be the same as per item Nos. 20.5 (c-i) to 20.5 (c-iii) as the case may be. | | | | | |
| 20.6 | | Extra over item No. 20.3, 20.4 and 20.5 as the case may be, for adjusting of crest levels of O.F. and A.P.M. outlets with 1:2:4 cement concrete when lowering of crest level is involved :- | | | | | |
| | (a) | H' upto 0.5m | job | 148.75 | 220.45 | 148.75 | 220.45 |
| | (b) | H' more than 0.5m but upto 0.9m | job | 223.13 | 277.29 | 223.13 | 277.29 |
| | (c) | H' more than 0.9m but upto 1.10m | job | 297.50 | 369.72 | 297.50 | 369.72 |
| 20.7 | | Extra over item No. 20.3, 20.4 and 20.5 as the case may be for adjusting crest level of O.F. and A.P.M. outlets with 1:2:4 cement concrete when raising of the crest level is involved. | | | | | |
| | (a) | H' upto 0.5m | job | 111.56 | 183.27 | 111.56 | 183.27 |
| | (b) | H' more than 0.5m but upto 0.9m | job | 148.75 | 202.92 | 148.75 | 202.92 |
| | (c) | H' more than 0.9m but upto 1.10m | job | 223.13 | 295.35 | 223.13 | 295.35 |
| 20.8 | | Constructing, watching and removing bund in running water for outlets :- | | | | | |

| Sr. No. | Description | Unit | Plains | | Sub-Mountainous Region | |
|---------|---|------------|-------------|--------------|------------------------|--------------|
| | | | Labour Rate | Through Rate | Labour Rate | Through Rate |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| | (a) For adjusting 'B' 'Y' or crest level of the O.F. and A.P.M. types for plains and for dismantling or constructing pipe or barrel type outlets for sub mountainous region :-- | | | | | |
| | (i) For channels with designed F.S. depth up to 0.5m | job | 447.17 | 553.82 | 491.88 | 598.54 |
| | (ii) For channels with designed F.S. depth above 0.5m but upto 0.9m | job | 762.33 | 967.64 | 838.56 | 1043.87 |
| | (iii) For channels with designed F.S. depth above 0.9m but upto 1.10m | job | 1382.80 | 1718.76 | 1521.08 | 1857.04 |
| | (b) For constructing complete O.F. or A.P.M. type outlets in running water :-- | | | | | |
| | (i) For channels with designed F.S. depth up to 0.5m | job | 991.64 | 1247.62 | 991.64 | 1247.62 |
| | (ii) For channels with designed F.S. depth above 0.5m but upto 0.9m | job | 1343.42 | 1695.39 | 1343.42 | 1695.39 |
| | (iii) For channels with designed F.S. depth above 0.9m but upto 1.10m | job | 2214.08 | 2811.35 | 2214.08 | 2811.35 |
| | (c) For dismantling or constructing pipe outlets :-- | | | | | |
| | (i) For channels with designed F.S. depth up to 0.5m | job | 447.17 | 553.82 | 447.17 | 553.82 |
| | (ii) For channels with designed F.S. depth above 0.5m but upto 0.9m | job | 479.46 | 626.11 | 479.46 | 626.11 |
| | (iii) For channels with designed F.S. depth above 0.9m but upto 1.10m | job | 778.08 | 964.72 | 778.08 | 964.72 |
| 20.9 | Adjusting 'B' of tail cluster by dismantling and rebuilding throat walls. | per outlet | 211.56 | 476.72 | 211.56 | 476.72 |
| 20.10 | Extra labour for dressing bricks on O.F. and A.P.M. type outlets :- | | | | | |
| | (i) H' upto 0.5m | per outlet | 480.00 | - | 480.00 | - |
| | (ii) H' more than 0.5m but upto 0.9m | per outlet | 960.00 | - | 960.00 | - |
| | (iii) H' more than 0.9m but upto 1.10m | per outlet | 1520.00 | - | 1520.00 | - |

| Sr. No. | Description | Unit | Plains | | Sub-Mountainous Region | |
|---------|--|-----------------------|-------------|--------------|------------------------|--------------|
| | | | Labour Rate | Through Rate | Labour Rate | Through Rate |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 20.11 | Repairing damaged reducing collar of hume pipe outlets. | per outlet | 148.75 | 177.89 | 163.63 | 192.76 |
| 20.12 | Laying iron pipes for outlets upto 150 mm diameter. | m | 30.00 | - | 33.00 | - |
| 20.13 | Laying re-inforced cement concrete pipes for outlets and culverts including joining ends and fixing collar with cement mortar 1:2 :-- | | | | | |
| | (a) upto 150 mm inside diameter. | m | 22.09 | 28.94 | 24.30 | 31.15 |
| | (b) above 150 mm but upto 300 mm inside dia. | m | 49.58 | 63.28 | 54.54 | 68.24 |
| | (c) above 300 mm but upto 600 mm inside dia. | m | 123.96 | 163.17 | 136.36 | 175.57 |
| | (d) above 600 mm but upto 900 mm inside dia. | m | 247.92 | 312.78 | 272.71 | 337.57 |
| Note :- | The through rates for item No. 20.13 are applicable when the joints are plugged with cement mortar 1:2. | | | | | |
| 20.14 | Hoisting and placing precast R.C. Slab or stones in position on outlets or W.C culverts. | per outlet or culvert | 160.00 | - | 176.00 | - |
| 20.15 | Providing APM cast iron block complete in all respects including supply of pig iron, casting and pattern making, as per ISI specifications no. 7986-1976 | | | | | |
| | (a) Standard Bt of module= 0.20 ft Minimum weight of module= 65 kg | job | - | 2925.00 | - | 2925.00 |
| | (b) Standard Bt of module= 0.25 ft Minimum weight of module= 68 kg | job | - | 3060.00 | - | 3060.00 |
| | (c) Standard Bt of module= 0.32 ft Minimum weight of module= 72 kg | job | - | 3240.00 | - | 3240.00 |
| | (d) Standard Bt of module= 0.40 ft Minimum weight of module= 76 kg | job | - | 3420.00 | - | 3420.00 |
| | (e) Standard Bt of module= 0.50 ft Minimum weight of module= 80 kg | job | - | 3600.00 | - | 3600.00 |
| | (f) Standard Bt of module= 0.80 ft Minimum weight of module= 84 kg | job | - | 3780.00 | - | 3780.00 |

| Sr. No. | Description | Unit | Plains | | Sub-Mountainous Region | |
|---------|--|------|-------------|--------------|------------------------|--------------|
| | | | Labour Rate | Through Rate | Labour Rate | Through Rate |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| | (g) Standard Bt of module= 1.0 ft Minimum weight of module= 90 kg | job | - | 4050.00 | - | 4050.00 |
| Note:- | (i) Above rates are inclusive of pattern making, casting and finishing (complete in all respects). | | | | | |
| | (ii) Size of Bt is standard as per ISI code 7986 – 1976 para 6.3.2. | | | | | |
| | (iii) Minimum Weight of module can vary by 2%. | | | | | |