

RATES – 2022

SOUTHERN PROVINCIAL IRRIGATION DEPARTMENT



Contents


❖ RATE ANALYSIS FOR SURVEY	2
❖ RATES FOR MAINTENANCE.....	4
❖ RATES FOR CONSTRUCTION WORK	5
❖ RATES FOR MACHINERY	14
❖ RATES FOR MATERIAL TRANSPORT WITH THE DISTANCE	20


Rate Analysis for Survey


Item code	Description	Unit	Rate 2022
SPID/SUR/01	Heavy jungle clearing along survey line 4'-0" (1.2m) wide	km	20,449.00
SPID/SUR/02	Medium jungle clearing along survey line 4'-0" (1.2m) wide	km	13,633.00
SPID/SUR/03	Light jungle clearing along survey line 4'-0" (1.2m) wide	km	10,225.00
SPID/SUR/04	Secondary growth jungle clearing along survey line 4'-0" (1.2m) wide 50% Light jungle clearing	km	5,112.00
SPID/SUR/05	Shrub jungle clearing along survey line 4'-0" (1.2m) wide 50% Light jungle clearing	km	7,668.00
SPID/SUR/06	Survey excluding off setting - 1.5 km/day	km	5,350.00
SPID/SUR/07	Survey including off setting - 0.75 km/day	km	10,700.00
SPID/SUR/08	Leveling L.S at 30m intervals/change of grade establish B.MM & fly back 1.5km /day	km	5,350.00
SPID/SUR/09	Leveling L.S at 30m intervals/change of grade establish B.MM & the fly back inclusive of chaining , cutting jungle pegs and pegging 1 km/day	km	8,025.00
SPID/SUR/10	Leveling L.S and C.SS (less than 15m on either side of center line) at 30 m intervals/change of grade establish B.MM and fly back 1 km/day	km	8,025.00
SPID/SUR/11	Leveling L.S and C.SS (Less than 15 m on either side of center line) at 30m intervals/change of grade establish B.MM & fly back inclusive of chaining, cutting jungle pegs and pegging 0.75km/day	km	10,700.00
SPID/SUR/12	Leveling L.S and C.S (More than 15 m but less than 30m on either side of center line) at 30m intervals/change of grade establish B.MM & fly back 0.75km/day	km	10700.00
SPID/SUR/13	Leveling L.S and C.S (More than 15 m but less than 30 m on either side of center line) at 30 m intervals/change of grade, establish B.MM and fly back inclusive of chaining, cutting, jungle pegs and pegging 0.5km/day	km	16050.00
SPID/SUR/14	Site survey for structures including all details 0.40 Ha/day	Ha	20063.00

Prepared by:


Checked by:


.....
D.P. Kokila
Drawing Office Assistant


.....
Samantha Gunasekara
Engineering Assistant


.....
S.J.P. Shanthapriya
Planning Engineer

Recommended by:


.....
L. I. Ramanayeka
Chief Irrigation Engineer

Approved by:

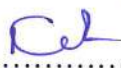

.....
A. Ranasinghe
Provincial Director of Irrigation

ඉංජිනේරු ඒ.රනසිංහ
සමාජ වාරිමාර්ග ආධිපතිවරයා
සමාජ වරිමාර්ග දෙපාර්තමේන්තුව
කොළඹ, ශ්‍රී ලංකාව


Rates for Maintenance


Item Code	Description	Unit	Rate 2021
SPID/MAIN /01	Shrub jungle clearing along the channel bund and removing outside of the reservation and burning (by manually)	m ²	40.00
SPID/MAIN /02	Secondary growth clearing along the channel bund removing outside of the reservation & burning (by manually)	m ²	27.00
SPID/MAIN /03	Weeding along the channel bund, Removing outside of the reservation & burning (by manually)	m ²	12.00
SPID/MAIN /04	Desilting along the drainage channel lift 0'-5' haul 0'-100' (by manually)	m ³	1733.00
SPID/MAIN /05	Removal of water plants in channel and throw out of the reservation & burning (by manually)	m ²	24.00
SPID/MAIN /06	Clearing side drains in channel system including removal the obstacles, Plants throw out the reservation & burning (by manually)	m ³	2119.00
SPID/MAIN /07	Cutting sand bar by manually (without profit) For 1 Cu	m ³	1986.00
SPID/MAIN /08	Scarfig top surface of the bund (by manually)	m ²	73.00
SPID/MAIN /09	Stripping top soil to a depth of 75mm, remove all roots and throw out of the reservation and burning (by manually)	m ³	2119.00
SPID/MAIN /10	Channel clearing including removal of water plants, suspended matter deposited and dump out of the reservation by manually (Sample testing for Galle District- 2005)	m ²	101.00
SPID/MAIN /11	Formation of channel bund using dredge materials including, placing, Shaping & Compacting (by manually)	m ³	596.00

Prepared by:



.....
D.P. Kokila
Drawing Office Assistant

Checked by:


.....
Samantha Gunasekara
Engineering Assistant


.....
S.J.P. Shanthapriya
Design Engineer

Recommended by:


.....
L. I. Ramanayeka
Chief Irrigation Engineer

Approved by:


.....
A. Ranasinghe
Provincial Director of Irrigation
දෙපාර්තමේන්තුව
පළාත් වාරිමාර්ග දෙපාර්තමේන්තුව
කොළඹ

Rates for Construction work

Item Code	Description	Unit	Rate 2021
SPID/CON/A/01	Shrub jungle clearing along channel bund in or borrow area by manually	m ²	40.00
SPID/CON/A/02	Light jungle clearing along channel bund in or borrow area by manually	m ²	53.00
SPID/CON/A/03	Medium jungle clearing along channel bund or in borrow area by manually	m ²	73.00
SPID/CON/A/04	Heavy jungle clearing along channel bund or in borrow area by manually	m ²	97.00
SPID/CON/A/05	Secondary growth clearing along channel bund or in borrow area by manually	m ²	27.00
SPID/CON/A/06	Felling of isolated trees (0 - 1.5m) girth, cutting branches using chainsaw and removing outside of reservation by manually	No.	2,810.00
SPID/CON/A/07	Felling of isolated trees (1.5 - 3.0m) girth, cutting branches using chainsaw and removing outside reservation by manually	No.	9,786.00
SPID/CON/A/08	Felling of isolated trees (3.0 - 4.5m) girth, cutting branches using chainsaw and removing outside reservation by manually	No.	22,665.00
<u>B - Demolition</u>			
SPID/CON/B/01	Demolishing & removing existing 1:3:6 cement concrete parts by manually	m ³	8,104.00
SPID/CON/B/02	Demolishing & removing existing 1:2:4 cement concrete parts by manually	m ³	18,779.00
SPID/CON/B/03	Demolishing & removing existing random rubble masonry wall parts by manually	m ³	2,681.00
<u>C - Earthwork</u>			
SPID/CON/C/01	Stripping top soil, cut and lift (0 - 1.5m), haul 30m by manually	m ³	2,119.00
SPID/CON/C/02	Earth Excavation, spoil for bund / back fill / dump, cut & lift (0 - 1.5m), haul 30m by manually	m ³	2,509.00
SPID/CON/C/03	Earth Excavation, spoil for bund / back fill / dump, cut & lift 0 - 1.5m no haul by manually	m ³	1,979.00
SPID/CON/C/04	Earth Excavation, spoil for bund / back fill / dump, cut & lift 1.5 - 3.0m, haul 30m by manually	m ³	3,976.00
SPID/CON/C/05	Gravel Excavation, spoil for dump/pile, cut & lift 0 - 1.5m, haul 30m by manually	m ³	3,069.00
SPID/CON/C/06	Gravel excavation from borrow area and placing, spreading & compaction, haul 30m by manually	m ³	3,450.00
SPID/CON/C/07	Earth excavation and 20% back filling, including, watering, cut & lift 0 - 1.5m, haul 30m by manually	m ³	2,636.00

SPID/CON/C/08	Earth excavation and 20% back filling, including, watering, cut & lift, 1.5m - 3m, haul 30m by manually	m ³	4,102.00
SPID/CON/C/09	Earth excavation and 40% back filling including watering, cut & lift 0 - 1.5m, haul 30m by manually	m ³	2,744.00
SPID/CON/C/10	Earth excavation and 40% back filling, including watering, cut & lift (1.5 - 3.0m) haul 30m by manually	m ³	4,211.00
SPID/CON/C/11	Supplying & filling of sand, up to designed bed level, due to uneven surface of the canal bed by manually	m ³	7,939.00
SPID/CON/C/12	Placing & compaction earth in dam/embankment including watering by manually	m ³	603.00
SPID/CON/C/13	Placing & compacting earth in canal bund/ backfill including watering by manually	m ³	560.00
SPID/CON/C/14	Turfing in tank bund slopes /channel bund slopes ,watering till turf take roots, including loading / unloading without local transport	m ²	206.00
SPID/CON/C/15	Turfing in tank bund slopes/channel bund slopes, watering till turf take roots, including loading / unloading with local transport by tractor (1km transport)	m ²	420.00
SPID/CON/C/16	Turfing in tank bund slopes/channel bund slopes, watering till turf take roots, including loading / unloading with local transport by lorry (1km transport)	m ²	470.00
SPID/CON/C/17	Turfing in tank bund slopes/channel bund slopes, watering till turf take roots, including loading / unloading with local transport by tractor (2km transport)	m ²	424.00
SPID/CON/C/18	Turfing in tank bund slopes/channel bund slopes, watering till turf take roots, including loading / unloading with local transport by lorry (2km transport)	m ²	476.00
SPID/CON/C/19	Turfing in tank bund slopes/ channel bund slopes, watering till turf take roots, including loading / unloading with local transport by tractor (3km transport)	m ²	429.00
SPID/CON/C/20	Turfing in tank bund slopes/ channel bund slopes, watering till turf take roots, including loading / unloading with local transport by lorry (3km transport)	m ²	482.00
SPID/CON/C/21	Turfing in tank bund slopes/channel bund slopes, watering till turf take roots, including loading / unloading with local transport by tractor (4km transport)	m ²	434.00
SPID/CON/C/22	Turfing in tank bund slopes/channel bund slopes, watering till turf take roots, including loading / unloading with local transport by lorry (4km transport)	m ²	487.00
SPID/CON/C/23	Turfing in tank bund slopes/channel bund slopes, watering till turf take roots, including loading / unloading with local transport (5km transport)	m ²	439.00
SPID/CON/C/24	Turfing in tank bund slopes/channel bund slopes, watering till turf take roots, including loading / unloading with local transport by lorry (5km transport)	m ²	493.00
SPID/CON/C/25	Earth excavation foundation, 0" - 5" ,haul 100" by manually	m ³	2,509.00

SPID/CON/C/26	Earth excavation foundation 0" - 5" no haul by manually	m ³	1,979.00
SPID/CON/C/27	Earth excavation from borrow area and forming channel bund, including placing, compacting & watering cut & lift 0"- 5" haul 200" by manually	m ³	2,931.00
SPID/CON/C/28	Earth excavation from borrow area forming channel bund including placing, compacting & watering, no haul by manually	m ³	1,884.00
SPID/CON/C/29	Earth excavation from paddy fields, including placing, compacting without watering, cut & lift 0"-5" no haul by manually	m ³	2,396.00
SPID/CON/C/30	Earth excavation from borrow area & forming canal bund including placing, watering, compacting & 1/4 mile transport by tractor	m ³	2,116.00
SPID/CON/C/31	Earth excavation from borrow area & forming canal bund including placing, watering, compacting & 1/4 mile transport by lorry	m ³	2,303.00
SPID/CON/C/32	Earth excavation from borrow area & forming canal bund including placing, watering, compacting & 1/2 mile transport by tractor	m ³	2,138.00
SPID/CON/C/33	Earth excavation from borrow area & forming canal bund including placing, watering, compacting & 1/2 mile transport by lorry	m ³	2,346.00
SPID/CON/C/34	Earth excavation from borrow area & forming canal bund including placing, watering, compacting & 3/4 mile transport by tractor	m ³	2,160.00
SPID/CON/C/35	Earth excavation from borrow area & forming canal bund including placing, watering, compacting & 3/4 mile transport by lorry	m ³	2,389.00
SPID/CON/C/36	Earth excavation from borrow area & forming canal bund including placing, watering, compacting & 1 mile transport by tractor.	m ³	2,183.00
SPID/CON/C/37	Earth excavation from borrow area & forming canal bund including placing, watering, compacting & 1 mile transport by lorry.	m ³	3,432.00
SPID/CON/C/38	Earth excavation from borrow area & forming canal bund including placing, watering, compacting & 1 1/4 mile transport by tractor .	m ³	2,205.00
SPID/CON/C/39	Earth excavation from borrow area & forming canal bund including placing, watering, compacting & 1 1/4 mile transport by lorry	m ³	2,475.00
SPID/CON/C/40	Earth excavation from borrow area & forming canal bund including placing, watering, compacting & 1 1/2 mile transport by tractor	m ³	2,228.00
SPID/CON/C/41	Earth excavation from borrow area & forming canal bund including placing, watering, compacting & 1 1/2 mile transport by lorry	m ³	2,519.00
SPID/CON/C/42	Earth excavation from borrow area & forming canal bund including placing, watering, compacting & 1 3/4 mile transport by tractor	m ³	2,250.00

SPID/CON/C/43	Earth excavation from borrow area & forming canal bund including placing, watering, compacting & 1 3/4 mile transport by lorry	m ³	2,562.00
SPID/CON/C/44	Earth excavation from borrow area & forming canal bund including placing, watering, compacting & 2 mile transport by tractor .	m ³	2,273.00
SPID/CON/C/45	Earth excavation from borrow area & forming canal bund including placing, watering, compacting & 2 mile transport by lorry .	m ³	2,065.00
SPID/CON/C/46	Earth excavation from borrow area & forming canal bund including placing, watering, compacting & 2 1/4 mile transport by tractor.	m ³	2,295.00
SPID/CON/C/47	Earth excavation from borrow area & forming canal bund including placing, watering, compacting & 2 1/4 mile transport by lorry.	m ³	2,648.00
SPID/CON/C/48	Earth excavation from borrow area & forming canal bund including placing, watering, compacting & 2 1/2 mile transport by tractor.	m ³	2,318.00
SPID/CON/C/49	Earth excavation from borrow area & forming canal bund including placing, watering, compacting & 2 1/2 mile transport by lorry.	m ³	2,691.00
SPID/CON/C/50	Forming canal bund using dredge materials, including placing, compacting manually.	m ³	596.00
SPID/CON/C/51	Picking roots in dam embankment/ canal/ backfilling by manually	m ³	64.00
SPID/CON/C/52	Earth spreading in dam embankment/ canal/ backfilling by manually	m ³	238.00
SPID/CON/C/53	Earth compaction in dam embankment excluding watering by manually	m ³	272.00
SPID/CON/C/54	Earth compaction in canal/backfilling excluding watering by manually	m ³	238.00
SPID/CON/C/55	Watering for compaction of dam embankment	m ³	29.00
SPID/CON/C/56	Watering for compaction in canal / backfill	m ³	18.00

D – From work

SPID/CON/D/01	12mm thick plywood furnishing, making smooth form work each of 3 uses including fixing and removing	m ²	2,518.00
SPID/CON/D/02	15mm thick plywood furnishing, making smooth form each 03 uses including fixing and removing	m ²	2,666.00
SPID/CON/D/03	Timber shoring for excavation (class III)	m ²	996.00

E - Reinforcement

SPID/CON/E/01	Furnishing , cutting , bending & placing tor steel reinforcement	kg	465.00
SPID/CON/E/02	Furnishing , cutting , bending & placing mild steel reinforcement	kg	466.00
SPID/CON/E/03	Supplying & fixing 16 mm dia 450 mm long tor steel dowels including drilling	No.	1,196.00
SPID/CON/E/04	Supplying & fixing 20 mm dia 450 mm long tor steel dowels including drilling	No.	1,345.00
SPID/CON/E/05	Supplying & fixing 25 mm dia 450 mm long tor steel dowels including drilling	No.	1,578.00

F- Concrete work

SPID/CON/F/01	1:4:8 (40 mm) cement concrete excluding form work, by manually including 8 mile for cement, 6 mile for metal and 10 mile for sand as transport,	m ³	24,012.00
SPID/CON/F/02	1:4:8 (40 mm) cement concrete excluding form work, by mixer including 8 mile for cement, 6 mile for metal and 10 mile for sand as transport,	m ³	24,880.00
SPID/CON/F/03	1:3:6 (40 mm) cement concrete by manually, excluding material transport, excluding form work.	m ³	27,953.00
SPID/CON/F/04	1:3:6 (40 mm) cement concrete by mixer, excluding material transport, excluding form work.	m ³	26,702.00
SPID/CON/F/05	1:3:6 (40 mm) cement concrete by manually, including material transport, including form work.	m ³	234,033.00
SPID/CON/F/06	1:3:6 (40 mm) cement concrete by mixer, including material transport, including form work.	m ³	32,782.00
SPID/CON/F/07	1:3:6(25 mm) Cement concrete without shuttering by manually, including 08 miles for cement, 06 miles for metal, and 10 miles for sand as transport.	m ³	28,161.00
SPID/CON/F/08	1:3:6(25 mm) Cement concrete without shuttering by mixer, including 08 miles for cement, 06 miles for metal, and 10 miles for sand as transport.	m ³	26,909.00
SPID/CON/F/09	1:3:6 (25 mm) Cement concrete with shuttering by manually, including 08 miles for cement,06 miles for metal, and 10 miles for sand as transport.	m ³	34,241.00
SPID/CON/F/10	1:3:6 (25 mm) Cement concrete with shuttering by mixer, including 08 miles for cement,06 miles for metal, and 10 miles for sand as transport.	m ³	32,989.00
SPID/CON/F/11	1:2:4(20 mm) Cement concrete without shuttering by manually, including 08 miles for cement, 06 miles for metal, and 10 miles for sand as transport	m ³	31,437.00
SPID/CON/F/12	1:2:4(20 mm) Cement concrete without shuttering by mixer, including 08 miles for cement, 06 miles for metal, and 10 miles for sand as transport	m ³	30,185.00
SPID/CON/F/13	1:2:4 (20mm) Cement concrete by manually, including material transport, including form work	m ³	39,544.00

SPID/CON/F/14	1:2:4 (20mm) Cement concrete by mixer, including material transport, including form work	m ³	38,292.00
SPID/CON/F/15	1:1 1/2:3 (20 mm) Cement concrete without shuttering by manually. Including 08 miles for cement, 06 miles for metal, and 10 miles for sand as transport.	m ³	34,039.00
SPID/CON/F/16	1:1 1/2:3 (20 mm) Cement concrete without shuttering by mixer. Including 08 miles for cement, 06 miles for metal, and 10 miles for sand as transport.	m ³	32,788.00
SPID/CON/F/17	1:1 1/2:3 (20 mm) Cement concrete with shuttering by manually, including 08 miles for cement, 06 miles for metal, and 10 miles for sand as transport	m ³	39,106.00
SPID/CON/F/18	1:1 1/2:3 (20 mm) Cement concrete with shuttering by mixer, including 08 miles for cement, 06 miles for metal, and 10 miles for sand as transport	m ³	37,854.00

G – Masonry work

SPID/CON/G/01	6"- 9" random rubble masonry in 1:5 cement mortar including local transport with loading/unloading	m ³	17,567.00
SPID/CON/G/02	9" thick rubble pitching in 1:5 cement mortar including local transport with loading/unloading	m ²	3,923.00
SPID/CON/G/03	Furnishing & placing 9" thick rubble rip rap by manually including local transport with loading/unloading	m ³	8,673.00
SPID/CON/G/04	12" Thick rubble packing including Local transport loading / unloading	m ³	7,433.00
SPID/CON/G/05	9" thick rubble packing by manually rate including transport, loading unloading	m ³	5,630.00
SPID/CON/G/06	1/2" Thick rough cement plastering in 1:3 cement mortar Local transport with loading unloading	m ²	1,047.00
SPID/CON/G/07	225 mm Brick masonry in 1:5 cement mortar Including Local transport, loading unloading	m ³	25,692.00
SPID/CON/G/08	Rate analysis for 112.5mm thick brick masonry in 1:5 cement mortar including Local transport, loading unloading	m ²	3,149.00

H – Hume Pipe

SPID/CON/H/01	Supplying & laying 6" dia hume pipe including local transport, loading /unloading	m	3,011.00
SPID/CON/H/02	Supplying & laying 9" dia hume pipe including local transport loading /unloading	m	3,634.00
SPID/CON/H/03	Supplying, laying & jointing 12" dia hume pipe including local transport, loading /unloading.	m	5,859.00
SPID/CON/H/04	Supplying , laying & jointing 18" dia hume pipe including local transport, loading /unloading	m	8,166.00
SPID/CON/H/05	Supplying, laying & jointing 24" dia hume pipe including local transport, loading /unloading	m	10,869.00
SPID/CON/H/06	Supplying ,laying & jointing 30" dia hume pipe including local transport, loading /unloading	m	15,926.00
SPID/CON/H/07	Supplying, laying & jointing 36" dia hume pipe including local transport, loading /unloading	m	17,989.00

J – CI sluice gate

SPID/CON/J/01	Supplying & fixing 6" dia C.I. sluice gate including all accessories, main transport, local transport, loading /unloading.	No.	74,111.00
SPID/CON/J/02	Supplying & fixing 9" dia C.I. sluice gate including all accessories, main transport, local transport, loading /unloading.	No.	90,179.00
SPID/CON/J/03	Supplying & fixing 12" dia C.I. sluice gate including all accessories, main transport, local transport, loading /unloading.	No.	117,555.00
SPID/CON/J/04	Supplying & fixing 15" dia C.I. sluice gate including all accessories, main transport, local transport, loading /unloading.	No.	180,075.00
SPID/CON/J/05	Supplying & fixing 18" dia C.I. sluice gate including all accessories, main transport, local transport, loading /unloading.	No.	238,716.00
SPID/CON/J/06	Supplying & fixing 24" dia C.I. sluice gate including all accessories, main transport, local transport, loading /unloading.	No.	373,955.00
SPID/CON/J/07	Supplying & fixing 30" dia C.I. sluice gate including all accessories, main transport, local transport, loading /unloading.	No.	426,899.00

K - Miscellaneous

SPID/CON/K/01	Supplying and installation of $W_1 \times H_1$ ($0 \text{ m}^2 < \text{Area} \leq 1.8 \text{ m}^2$) lifting gate using (75 x 150) mm Kumbuk timber planks, (75 x 75 x 6)mm Angle iron, (75 x 6)mm Flat iron, 6mm thick Gusset plate, 12mm dia. 125mm long nut & bolt...etc. Rate including applying two coats of Tar on all surfaces of timber planks & applying two coats of Anticorrosive paint on all Metal parts as directed. (Kumbuk timber planks to be provided by the DIE's office and to be transported to the site by the Contractor))	m^2	39,338.00
SPID/CON/K/02	Supplying and installation of $W_2 \times H_2$ ($1.8 \text{ m}^2 < \text{Area} \leq 2.7 \text{ m}^2$) lifting gate using (75 x 150) mm kumbuk timber planks,(75 x 75 x 6)mm Angle iron, (75 X 6) mm Flat iron, 6mm thick Gusset plate, 12 mm dia.125mm long nut & bolt...etc. Rate including applying two coats of Tar on all surface of timber planks & applying two coats of Anticorrosive paint on all Metal parts as directed.(kumbuk timber planks to be provided by the DIE's office and to be transported to the site by the Contractor))	m^2	59,007.00

SPID/CON/K/03	Supplying and installation of $W_3 \times H_3$ ($2.7 \text{ m}^2 < \text{Area} \leq 3.6 \text{ m}^2$) lifting gate using (75 x 150) mm Kumbuk timber planks, (75 x 75 x 6) mm Angle iron, (75 x 6)mm Flat iron, 6mm thick Gusset plate, 12 mm dia. 125mm long nut & bolt... etc. Rate including applying two coats of Tar on all surfaces of timber planks & applying two coats of Anticorrosive paint on all Metal parts as directed. (Kumbuk timber planks to be provided by the DIE's office and to be transported to the site by the Contractor)	m^2	58,022.00
SPID/CON/K/04	Supplying and installation of $W_4 \times H_4$ ($3.6 \text{ m}^2 < \text{Area} \leq 4.5 \text{ m}^2$) lifting gate using (75 x 150) mm Kumbuk timber planks, (75 x 75 x 6) mm Angle iron, (75 x 6)mm Flat iron, 6mm thick Gusset plate, 12 mm dia. 125mm long nut & bolt... etc. Rate including applying two coats of Tar on all surfaces of timber planks & applying two coats of Anticorrosive paint on all Metal parts as directed. (Kumbuk timber planks to be provided by the DIE's office and to be transported to the site by the Contractor)	m^2	43,517.00
SPID/CON/K/05	Supplying and installation of 0.9 m high hand rail using 50mm x 50mm G.I. box bar, 50mmx25mm G.I. box bar, 6mm thick MS plate, 12 mm dia. 125mm long Anchor bolt... etc. Rate including applying two coats of Marine paint on all Metal parts as directed	m	15,775.00
SPID/CON/K/06	Making cofferdam using polysack sand bag. Rate including packing, placing, removing sand bags and clearing sit as directed. (Cofferdam piles size 6m x 0.9m x 1.5m & not exceeding 8.1m ³ volume & all material 01 use)	m^3	12,742.00
SPID/CON/K/07	Making cofferdam using polysack sand bag. Rate including packing, placing, removing sand bags and clearing sit as directed. (Cofferdam piles size 6m x 0.9m x 1.5m & not exceeding 8.1m ³ volume & all material 02 use)	m^3	9,578.00
SPID/CON/K/08	Supplying, cutting, bending, drilling and fixing 200mm long hook for anicut planks. Using 16mm x 16mm flat iron & 40mm long brass screw nails. Rate including applying two coats of anticorrosive paints.	No.	320.00
SPID/CON/K/09	Supplying and placing PVC coated Gabion boxes, (Mesh Wire Dia 2.7, selvedge wire Dia 3.4 Lacing Wire Dia 2.2)}, including 6" x 9" rubble packing (Mesh opening 80mm x 100mm), Placing (Diaphragms 1.0m centers) and arranging along the channel for 1.5x1.0x1.0m box	m^3	15,661.00
SPID/CON/K/10	Supplying and laying geotextile	m^2	337.00
SPID/CON/K/11	Supplying & applying 2 coast of hot tar for anicut gate	m^2	632.00
SPID/CON/K/12	Providing of weep hole using 2" dia. (600)PVC pipes	m	405.00
SPID/CON/K/13	Construction of filter for weep hole	m^3	431.00
SPID/CON/K/14	Applying 2 coats of Anticorrosive Paint for an existing Lifting gate (Wooden)	m^2	1,301.00

SPID/CON/K/15	Grass cutter operating on day assume 400.0 m ²	m ²	2.00
SPID/CON/K/16	Applying anticorrosive paints (2 coats) for 50 x 50 box bar hand rail	L.m.	799.00
SPID/CON/K/17	Locking arrangement for anicut planks using 50mm x 6m flat iron with 2 holes and 2 nos 10mm dia. MS Steel hooks, Including pad lock and applying Marine paint	Nos.	3,246.00
SPID/CON/K/18	Applying 2 coats of Anticorrosive paint for an existing Lifting gate (steel gate)	m ²	6,096.00
SPID/CON/K/19	Applying 2 coats of Marine Paint for an existing Lifting gate (steel gate)	m ²	6,546.00

Prepared by:



.....
D.P. Kokila
Drawing Office Assistant

Checked by:



.....
Samantha Gunasekara
Engineering Assistant



.....
S.J.P. Shanthapriya
Planning Engineer

Recommended by:



.....
L. I. Ramanayeka
Chief Irrigation Engineer

Approved by:



.....
A. Ranasinghe
Provincial Director of Irrigation

ඉංජිනේරු එ.රනසිංහ
පළාත් වාරිමාර්ග අධ්‍යක්ෂ ජනරාල්
පළාත් වර්මාර්ග දෙපාර්තමේන්තුව
'සබරගමුව'

Rates for Machinery

Item Code	Description	Unit	Rate 2021
<u>A – Channel Dredging</u>			
SPID/MACH/A/01	Dredging along the channel by Hydraulic Excavator with pontoon (Up to PC 60)	m ³	142.00
SPID/MACH/A/02	Dredging along the channel by Hydraulic Excavator without pontoon (Up to PC 60)	m ³	119.00
SPID/MACH/A/03	Dredging along the channel by Hydraulic Excavator with pontoon (Over PC 70)	m ³	201.00
SPID/MACH/A/04	Dredging along the channel by Hydraulic Excavator without pontoon (Over PC 70)	m ³	141.00
SPID/MACH/A/05	Channel desilting by Hydraulic Excavator with pontoon (Up to PC 60)	m ³	175.00
SPID/MACH/A/06	Channel desilting by Hydraulic Excavator without pontoon (Over PC 60)	m ³	138.00
SPID/MACH/A/07	Channel desilting by Hydraulic Excavator with pontoon (Over PC 70)	m ³	170.00
SPID/MACH/A/08	Channel desilting by Hydraulic Excavator without pontoon (Over PC 70)	m ³	121.00
SPID/MACH/A/09	Channel desilting by Hydraulic Excavator with pontoon (Over PC 200)	m ³	106.00
SPID/MACH/A/10	Channel desilting by Hydraulic Excavator without pontoon (Over PC 200)	m ³	77.00
<u>B – Removing Water Plants</u>			
SPID/MACH/B/01	Removing water plants with silt layer in root zone by Hydraulic Excavator with pontoon (Up to PC 60)	m ³	104.00
SPID/MACH/B/02	Removing water plants with silt layer in root zone by Hydraulic Excavator without pontoon (Up to PC 60)	m ³	89.00
SPID/MACH/B/03	Removing water plants with silt layer in root zone by Hydraulic Excavator with pontoon (over PC 70)	m ³	148.00
SPID/MACH/B/04	Removing water plants with silt layer in root zone by Hydraulic Excavator without pontoon (Over PC 70)	m ³	105.00
<u>C – Removing Ketala</u>			
SPID/MACH/C/01	Removing ketala with silt along the channel by Hydraulic Excavator with pontoon (Up to PC 60)	m ³	132.00
SPID/MACH/C/02	Removing ketala with silt along the channel by Hydraulic Excavator without pontoon (Up to PC 60)	m ³	111.00
SPID/MACH/C/03	Removing ketala with silt along the channel by Hydraulic Excavator with pontoon (Over PC 70)	m ³	187.00
SPID/MACH/C/04	Removing ketala with silt along the channel by Hydraulic Excavator without pontoon (Over PC 70)	m ³	131.00
SPID/MACH/C/05	Removing (loading) dredged materials by machinery as directed.	m ³	91.00
SPID/MACH/C/06	Channel clearing including removal of water plants, suspended matter deposited and dump out of the reservation by machinery	m ²	23.00

D – Earthwork

SPID/MACH/D/01	Stripping top soil by Backhoe loader	m ³	77.00
SPID/MACH/D/02	Earth Compaction by vibrating roller (1/2 - 1 ton) (PBC - 56.6)	m ³	-
SPID/MACH/D/03	Earth Compaction by vibrating rammer (60 kg)	m ³	-
SPID/MACH/D/04	Formation bund from dredge materials and field earth including placing & compacting by machinery.	m ³	163.00
SPID/MACH/D/05	Cutting Sand bar by machine at sea out falls (without transport)	m ³	205.00
SPID/MACH/D/06	Chanel excavation & spoil for bund back fill dump by department machine with pontoon. (only operating cost)	m ³	53.00
SPID/MACH/D/07	Formation bund from dredged materials & field earth placing compacting by department machine. (only operating cost)	m ³	76.00
SPID/MACH/D/08	Earth Excavation by machinery – using backhoe loader	m ³	110.00
SPID/MACH/D/09	Earth excavation and spoil to waste or fill material cut and lift (0- 1.5)m spread 30m by machinery	m ³	149.00
SPID/MACH/D/10	Earth excavation and spoil to waste or fill material cut and lift (1.5 - 3.0)m spread 30m by machinery	m ³	153.00
SPID/MACH/D/11	Furnishing and placing gravel bedding excluding haul (by machinery)	m ³	173.00
SPID/MACH/D/12	Earth excavation borrow and loading, placing, spreading, by Backhoe loader and compacting by 8T Roller watering to be done as per Engineers instruction & 1/4 mile transport by Tractor(For watering paid by separately)	m ³	905.00
SPID/MACH/D/13	Earth excavation borrow and loading, placing, spreading, by Backhoe loader and compacting by 8T Roller watering to be done as per Engineers instruction & 1/2 mile transport by Tractor (For watering paid by separately)	m ³	963.00
SPID/MACH/D/14	Earth excavation borrow and loading, placing, spreading, by Backhoe loader and compacting by 8T Roller watering to be done as per Engineers instruction & 3/4 mile transport by Tractor (For watering paid by separately)	m ³	1,021.00
SPID/MACH/D/15	Earth excavation borrow and loading, placing, spreading, by Backhoe loader and compacting by 8T Roller watering to be done as per Engineers instruction & 1 mile transport by Tractor (For watering paid by separately)	m ³	1,079.00
SPID/MACH/D/16	Earth excavation borrow and loading, placing, spreading, by Backhoe loader and compacting by 8T Roller watering to be done as per Engineers instruction & 1 1/4 mile transport by Tractor (For watering paid by separately)	m ³	1,138.00

SPID/MACH/D/17	Earth excavation borrow and loading, placing, spreading, by Backhoe loader and compacting by 8T Roller watering to be done as per Engineers instruction & 1 1/2 mile transport by Tractor (For watering paid by separately	m ³	1,196.00
SPID/MACH/D/18	Earth excavation borrow and loading, placing, spreading, by Backhoe loader and compacting by 8T Roller watering to be done as per Engineers instruction & 1 3/4 mile transport by Tractor (For watering paid by separately	m ³	1,254.00
SPID/MACH/D/19	Earth excavation borrow and loading, placing, spreading, by Backhoe loader and compacting by 8T Roller watering to be done as per Engineers instruction & 2 mile transport by Tractor (For watering paid by separately	m ³	1,312.00
SPID/MACH/D/20	Earth excavation borrow and loading, placing, spreading, by Backhoe loader and compacting by 8T Roller watering to be done as per Engineers instruction & 2 1/4 mile transport by Tractor(For watering paid by separately	m ³	1,371.00
SPID/MACH/D/21	Earth excavation borrow and loading, placing, spreading, by Backhoe loader and compacting by 8T Roller watering to be done as per Engineers instruction & 2 1/2 mile transport by Tractor (For watering paid by separately	m ³	1,429.00
SPID/MACH/D/22	Tank bed desilting by using PC 30 backhoe excavator & silt transporting and depositing within 1/4 mile by tractor	m ³	432.00
SPID/MACH/D/23	Tank bed desilting & silt transporting and depositing within 1/2 mile by using PC 30 backhoe excavator by tractor	m ³	453.00
SPID/MACH/D/24	Tank bed desilting & silt transporting and depositing within 3/4 mile by using PC 30 backhoe excavator by tractor	m ³	473.00
SPID/MACH/D/25	Tank bed desilting by using PC 30 backhoe excavator & silt transporting and depositing within 1 mile by tractor	m ³	494.00
SPID/MACH/D/26	Tank bed desilting by using PC 30 backhoe excavator & silt transporting and depositing within 1 1/4 mile by tractor	m ³	514.00
SPID/MACH/D/27	Tank bed desilting by using PC 30 backhoe excavator & silt transporting and depositing within 1 1/2 mile by tractor	m ³	535.00
SPID/MACH/D/28	Tank bed desilting by using PC 30 backhoe excavator & silt transporting and depositing within 1 3/4 mile by tractor	m ³	555.00
SPID/MACH/D/29	Tank bed desilting by using PC 30 backhoe excavator & silt transporting and depositing within 2 mile by tractor	m ³	576.00
SPID/MACH/D/30	Tank bed desilting by using PC 30 backhoe excavator & silt transporting and depositing within 2 1/4 mile by tractor	m ³	597.00

SPID/MACH/D/31	Tank bed desilting by using PC 30 backhoe excavator & silt transporting and depositing within 2 ½ mile by tractor	m ³	617.00
SPID/MACH/D/32	Tank bed desilting by using PC 70 backhoe excavator & silt transporting and depositing within ¼ mile by tractor	m ³	421.00
SPID/MACH/D/33	Tank bed desilting by using PC 70 backhoe excavator & silt transporting and depositing within 1/2 mile by tractor	m ³	442.00
SPID/MACH/D/34	Tank bed desilting by using PC 70 backhoe excavator & silt transporting and depositing within 3/4 mile by tractor	m ³	462.00
SPID/MACH/D/35	Tank bed desilting by using PC 70 backhoe excavator & silt transporting and depositing within 1 mile by tractor	m ³	483.00
SPID/MACH/D/36	Tank bed desilting by using PC 70 backhoe excavator & silt transporting and depositing within 1 ¼ mile by tractor	m ³	503.00
SPID/MACH/D/37	Tank bed desilting by using PC 70 backhoe excavator & silt transporting and depositing within 1 ½ mile by tractor	m ³	524.00
SPID/MACH/D/38	Tank bed desilting by using PC 70 backhoe excavator & silt transporting and depositing within 1 ¾ mile by tractor	m ³	544.00
SPID/MACH/D/39	Tank bed desilting by using PC 70 backhoe excavator & silt transporting and depositing within 2 mile by tractor	m ³	565.00
SPID/MACH/D/40	Tank bed desilting by using PC 70 backhoe excavator & silt transporting and depositing within 2 ¼ mile by tractor	m ³	586.00
SPID/MACH/D/41	Tank bed desilting by using PC 70 backhoe excavator & silt transporting and depositing within 2 ½ mile by tractor	m ³	606.00
SPID/MACH/D/42	Tank bed desilting by using PC 120 backhoe excavator & silt transporting and depositing within ¼ mile by tractor	m ³	406.00
SPID/MACH/D/43	Tank bed desilting by using PC 120 backhoe excavator & silt transporting and depositing within 1/2 mile by tractor	m ³	427.00
SPID/MACH/D/44	Tank bed desilting by using PC 120 backhoe excavator & silt transporting and depositing within 3/4 mile by tractor	m ³	448.00
SPID/MACH/D/45	Tank bed desilting by using PC 120 backhoe excavator & silt transporting and depositing within 1 mile by tractor	m ³	468.00
SPID/MACH/D/46	Tank bed desilting by using PC 120 backhoe excavator & silt transporting and depositing within 1 ¼ mile by tractor	m ³	589.00
SPID/MACH/D/47	Tank bed desilting by using PC 120 backhoe excavator & silt transporting and depositing within 1 ½ mile by tractor	m ³	509.00

SPID/MACH/D/48	Tank bed desilting by using PC 120 backhoe excavator & silt transporting and depositing within 1 $\frac{3}{4}$ mile by tractor	m ³	530.00
SPID/MACH/D/49	Tank bed desilting by using PC 120 backhoe excavator & silt transporting and depositing within 2 mile by tractor	m ³	550.00
SPID/MACH/D/50	Tank bed desilting by using PC 120 backhoe excavator & silt transporting and depositing within 2 $\frac{1}{4}$ mile by tractor	m ³	571.00
SPID/MACH/D/51	Tank bed desilting by using PC 120 backhoe excavator & silt transporting and depositing within 2 $\frac{1}{2}$ mile by tractor	m ³	592.00
SPID/MACH/D/52	Tank bed desilting by using PC 200 backhoe excavator & silt transporting and depositing within $\frac{1}{4}$ mile by tractor	m ³	365.00
SPID/MACH/D/53	Tank bed desilting by using PC 200 backhoe excavator & silt transporting and depositing within 1/2 mile by tractor	m ³	382.00
SPID/MACH/D/54	Tank bed desilting by using PC 200 backhoe excavator & silt transporting and depositing within 3/4 mile by tractor	m ³	400.00
SPID/MACH/D/55	Tank bed desilting by using PC 200 backhoe excavator & silt transporting and depositing within 1 mile by tractor	m ³	418.00
SPID/MACH/D/56	Tank bed desilting by using PC 200 backhoe excavator & silt transporting and depositing within 1 $\frac{1}{4}$ mile by tractor	m ³	436.00
SPID/MACH/D/57	Tank bed desilting by using PC 200 backhoe excavator & silt transporting and depositing within 1 $\frac{1}{2}$ mile by tractor	m ³	454.00
SPID/MACH/D/58	Tank bed desilting by using PC 200 backhoe excavator & silt transporting and depositing within 1 $\frac{3}{4}$ mile by tractor	m ³	472.00
SPID/MACH/D/59	Tank bed desilting by using PC 200 backhoe excavator & silt transporting and depositing within 2 mile by tractor	m ³	490.00
SPID/MACH/D/60	Tank bed desilting by using PC 200 backhoe excavator & silt transporting and depositing within 2 $\frac{1}{4}$ mile by tractor	m ³	508.00
SPID/MACH/D/61	Tank bed desilting by using PC 200 backhoe excavator & silt transporting and depositing within 2 $\frac{1}{2}$ mile by tractor	m ³	526.00

Prepared by:

Checked by:



.....
D.P. Kokila
Drawing Office Assistant



.....
Samantha Gunasekara
Engineering Assistant



.....
S.J.P. Shanthapriya
Planning Engineer

Recommended by:



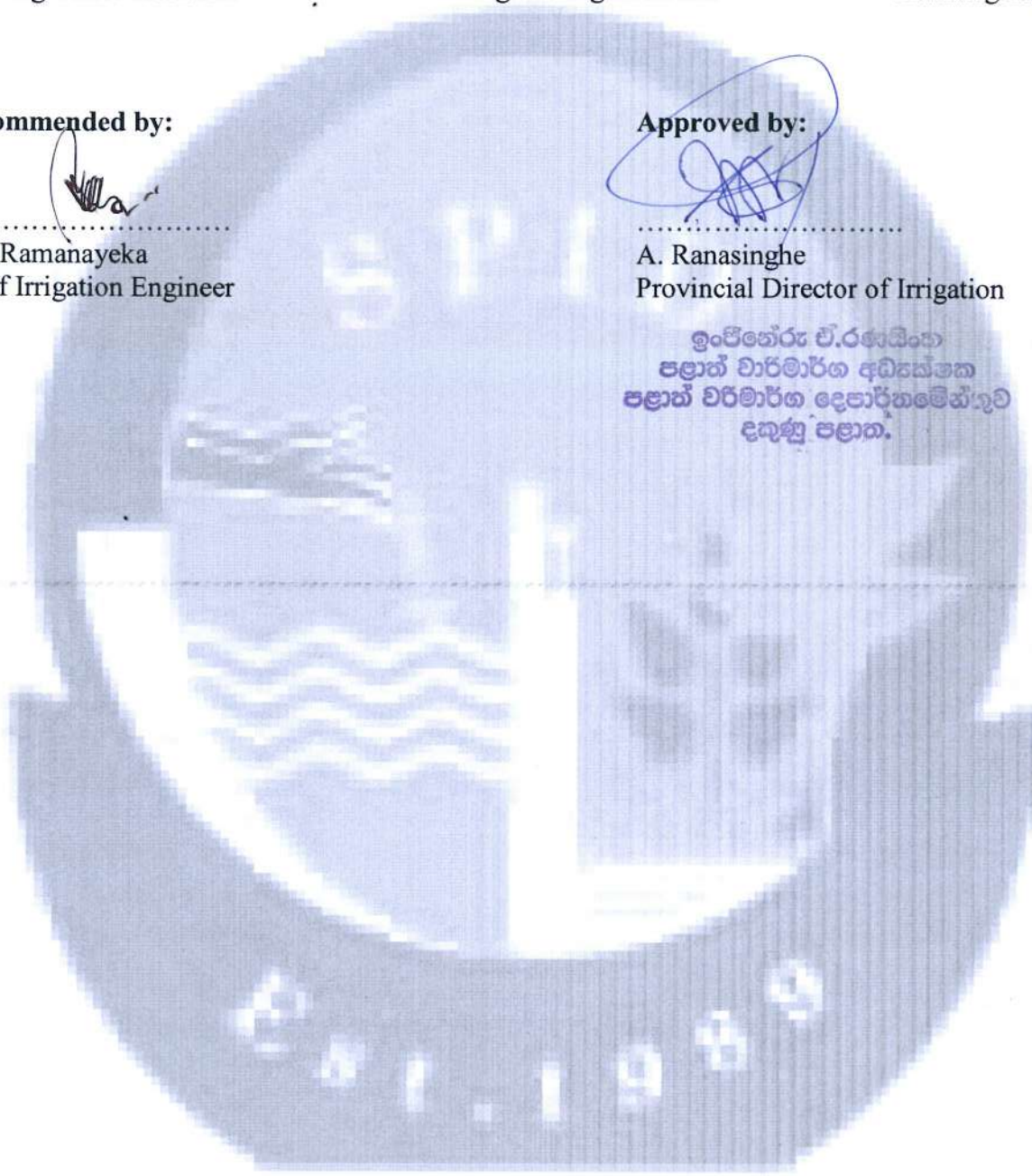
.....
L. I. Ramanayeka
Chief Irrigation Engineer

Approved by:



.....
A. Ranasinghe
Provincial Director of Irrigation

ඉංජිනේරු ඒ.රනසිංහ
පළාත් වාරිමාර්ග අධ්‍යක්ෂවරයා
පළාත් වාරිමාර්ග දෙපාර්තමේන්තුව
දකුණු පළාත.



Rates for material transport with the distance

Transport by Tractor – In Mile

Mile	Material									
	1 Cube Earth/Sand	1 Sq Turfing	1 ft ³ Timber	1 Ton Steel	1 Bag Cement	1 Cube Metal	1 ft long Hume Pipe (Dia. 6",9",12")	1 ft long Hume Pipe (Dia. 18",24")	1 ft long Hume Pipe (Dia. 30",36")	
0.25	545.96	502.03	10.04	448.24	20.92	636.96	9.96	26.15	39.22	
0.50	598.93	516.86	10.34	461.48	21.54	698.75	10.26	26.92	40.38	
0.75	651.89	531.69	10.63	474.72	22.15	760.54	10.55	27.69	41.54	
1.00	704.86	546.52	10.93	487.96	22.77	822.33	10.84	28.46	42.70	
1.25	757.82	561.35	11.23	501.20	23.39	884.12	11.14	29.24	43.86	
1.50	810.78	576.18	11.52	514.45	24.01	945.91	11.43	30.01	45.01	
1.75	863.75	591.01	11.82	527.69	24.63	1007.71	11.73	30.78	46.17	
2.00	916.71	605.84	12.12	540.93	25.24	1069.50	12.02	31.55	47.33	
2.25	969.68	620.67	12.41	554.17	25.86	1131.29	12.31	32.33	48.49	
2.50	1022.64	635.50	12.71	567.41	26.48	1193.08	12.61	33.10	49.65	
2.75	1075.60	650.33	13.01	580.65	27.10	1254.87	12.90	33.87	50.81	
3.00	1128.57	665.16	13.30	593.89	27.71	1316.66	13.20	34.64	51.97	
3.25	1181.53	679.99	13.60	607.13	28.33	1378.45	13.49	35.42	53.12	
3.50	1234.50	694.82	13.90	620.37	28.95	1440.24	13.79	36.19	54.28	
3.75	1287.46	709.65	14.19	633.61	29.57	1502.04	14.08	36.96	55.44	
4.00	1340.42	724.48	14.49	646.86	30.19	1563.83	14.37	37.73	56.60	
4.25	1393.39	739.31	14.79	660.10	30.80	1625.62	14.67	38.51	57.76	
4.50	1446.35	754.14	15.08	673.34	31.42	1687.41	14.96	39.28	58.92	

Mile	Material									
	1 Cube Earth / Sand	1 Sq Turfing	1ft ³ Timber	1 Ton Steel	1 Bag Cement	1 Cube Metal	1 ft long Hume Pipe (Dia. 6",9",12")	1 ft long Hume Pipe (Dia. 18",24")	1 ft long Hume Pipe (Dia. 30",36")	
4.75	1499.31	768.97	15.38	686.58	32.04	1749.20	15.26	40.05	60.08	
5.00	1552.28	783.80	15.68	699.82	32.66	1810.99	15.55	40.82	61.23	
5.25	1605.24	798.63	15.97	713.06	33.28	1872.78	15.85	41.60	62.39	
5.50	1658.21	813.46	16.27	726.30	33.89	1934.57	16.14	42.37	63.55	
5.75	1711.17	828.29	16.57	739.54	34.51	1996.37	16.43	43.14	64.71	
6.00	1764.13	843.12	16.86	752.78	35.13	2058.16	16.73	43.91	65.87	
6.25	1817.10	857.95	17.16	766.02	35.75	2119.95	17.02	44.68	67.03	
6.50	1870.06	872.78	17.46	779.27	36.37	2181.74	17.32	45.46	68.19	
6.75	1923.03	887.61	17.75	792.51	36.98	2243.53	17.61	46.23	69.34	
7.00	1975.99	902.44	18.05	805.75	37.60	2305.32	17.91	47.00	70.50	
7.25	2028.95	917.27	18.35	818.99	38.22	2367.11	18.20	47.77	71.66	
7.50	2081.92	932.10	18.64	832.23	38.84	2428.90	18.49	48.55	72.82	
7.75	2134.88	946.93	18.94	845.47	39.46	2490.70	18.79	49.32	73.98	
8.00	2187.85	961.76	19.24	858.71	40.07	2552.49	19.08	50.09	75.14	
8.25	2240.81	976.59	19.53	871.95	40.69	2614.28	19.38	50.86	76.30	
8.50	2293.77	991.42	19.83	885.19	41.31	2676.07	19.67	51.64	77.45	
8.75	2346.74	1006.25	20.12	898.43	41.93	2737.86	19.97	52.41	78.61	
9.00	2399.70	1021.08	20.42	911.68	42.54	2799.65	20.26	53.18	79.77	
9.25	2452.67	1035.91	20.72	924.92	43.16	2861.44	20.55	53.95	80.93	
9.50	2505.63	1050.74	21.01	938.16	43.78	2923.23	20.85	54.73	82.09	
9.75	2558.59	1065.57	21.31	951.40	44.40	2985.03	21.14	55.50	83.25	
10.00	2611.56	1080.40	21.61	964.64	45.02	3046.82	21.44	56.27	84.41	

Transport by Tractor – In Km

Distance		Material									
km	Mile	1 Cube Earth/Sand	1 Sq Turfing	1 ft ³ Timber	1 Ton Steel	1 Bag Cement	1 Cube Metal	1 ft long Hume Pipe (Dia. 6", 9", 12")	1 ft long Hume Pipe (Dia. 18", 24")	1 ft long Hume Pipe (Dia. 30", 36")	
0.25	0.16	526.10	496.47	9.93	443.28	20.69	613.79	9.85	25.86	38.79	
0.50	0.31	559.20	505.74	10.11	451.55	21.07	652.41	10.03	26.34	39.51	
0.75	0.47	592.31	515.01	10.30	459.83	21.46	691.03	10.22	26.82	40.23	
1.00	0.63	625.41	524.27	10.49	468.10	21.84	729.64	10.40	27.31	40.96	
1.25	0.78	658.51	533.54	10.67	476.38	22.23	768.26	10.59	27.79	41.68	
1.50	0.94	691.61	542.81	10.86	484.65	22.62	806.88	10.77	28.27	42.41	
1.75	1.09	724.72	552.08	11.04	492.93	23.00	845.50	10.95	28.75	43.13	
2.00	1.25	757.82	561.35	11.23	501.20	23.39	884.12	11.14	29.24	43.86	
2.25	1.41	790.92	570.62	11.41	509.48	23.78	922.74	11.32	29.72	44.58	
2.50	1.56	824.02	579.89	11.60	517.76	24.16	961.36	11.51	30.20	45.30	
2.75	1.72	857.13	589.16	11.78	526.03	24.55	999.98	11.69	30.69	46.03	
3.00	1.88	890.23	598.42	11.97	534.31	24.93	1038.60	11.87	31.17	46.75	
3.25	2.03	923.33	607.69	12.15	542.58	25.32	1077.22	12.06	31.65	47.48	
3.50	2.19	956.43	616.96	12.34	550.86	25.71	1115.84	12.24	32.13	48.20	
3.75	2.34	989.54	626.23	12.52	559.13	26.09	1154.46	12.43	32.62	48.92	
4.00	2.50	1022.64	635.50	12.71	567.41	26.48	1193.08	12.61	33.10	49.65	
4.25	2.66	1055.74	644.77	12.90	575.69	26.87	1231.70	12.79	33.58	50.37	
4.50	2.81	1088.84	654.04	13.08	583.96	27.25	1270.32	12.98	34.06	51.10	
4.75	2.97	1121.95	663.31	13.27	592.24	27.64	1308.94	13.16	34.55	51.82	
5.00	3.13	1155.05	672.57	13.45	600.51	28.02	1347.56	13.34	35.03	52.54	

Distance		Material									
km	Mile	1 Cube Earth/Sand	1 Sq Turfing	1 ft ³ Timber	1 Ton Steel	1 Bag Cement	1 Cube Metal	1 ft long Hume Pipe (Dia. 6", 9", 12")	1 ft long Hume Pipe (Dia. 18", 24")	1 ft long Hume Pipe (Dia. 30", 36")	
5.25	3.28	1188.15	681.84	13.64	608.79	28.41	1386.18	13.53	35.51	53.27	
5.50	3.44	1221.25	691.11	13.82	617.06	28.80	1424.80	13.71	36.00	53.99	
5.75	3.59	1254.36	700.38	14.01	625.34	29.18	1463.42	13.90	36.48	54.72	
6.00	3.75	1287.46	709.65	14.19	633.61	29.57	1502.04	14.08	36.96	55.44	
6.25	3.91	1320.56	718.92	14.38	641.89	29.95	1540.65	14.26	37.44	56.17	
6.50	4.06	1353.66	728.19	14.56	650.17	30.34	1579.27	14.45	37.93	56.89	
6.75	4.22	1386.77	737.45	14.75	658.44	30.73	1617.89	14.63	38.41	57.61	
7.00	4.38	1419.87	746.72	14.93	666.72	31.11	1656.51	14.82	38.89	58.34	
7.25	4.53	1452.97	755.99	15.12	674.99	31.50	1695.13	15.00	39.37	59.06	
7.50	4.69	1486.07	765.26	15.31	683.27	31.89	1733.75	15.18	39.86	59.79	
7.75	4.84	1519.18	774.53	15.49	691.54	32.27	1772.37	15.37	40.34	60.51	
8.00	5.00	1552.28	783.80	15.68	699.82	32.66	1810.99	15.55	40.82	61.23	
8.25	5.16	1585.38	793.07	15.86	708.10	33.04	1849.61	15.74	41.31	61.96	
8.50	5.31	1618.48	802.34	16.05	716.37	33.43	1888.23	15.92	41.79	62.68	
8.75	5.47	1651.59	811.60	16.23	724.65	33.82	1926.85	16.10	42.27	63.41	
9.00	5.63	1684.69	820.87	16.42	732.92	34.20	1965.47	16.29	42.75	64.13	
9.25	5.78	1717.79	830.14	16.60	741.20	34.59	2004.09	16.47	43.24	64.85	
9.50	5.94	1750.89	839.41	16.79	749.47	34.98	2042.71	16.65	43.72	65.58	
9.75	6.09	1784.00	848.68	16.97	757.75	35.36	2081.33	16.84	44.20	66.30	
10.00	6.25	1817.10	857.95	17.16	766.02	35.75	2119.95	17.02	44.68	67.03	

Transport by Lorry – In Mile

Mile	Material									
	1 Cube Earth/Sand	1 Sq Turfing	1 ft ³ Timber	1 Ton Steel	1 Bag Cement	1 Cube Metal	1 ft long Hume Pipe (Dia. 6" ,9" ,12")	1 ft long Hume Pipe (Dia. 18" ,24")	1 ft long Hume Pipe (Dia. 30" ,36")	
0.25	988.20	904.50	18.09	807.59	37.69	1152.90	17.95	47.11	70.66	
0.50	1089.98	932.99	18.66	833.03	38.87	1271.64	18.51	48.59	72.89	
0.75	1191.75	961.49	19.23	858.47	40.06	1390.37	19.08	50.08	75.12	
1.00	1293.52	989.99	19.80	883.92	41.25	1509.11	19.64	51.56	77.34	
1.25	1395.30	1018.48	20.37	909.36	42.44	1627.85	20.21	53.05	79.57	
1.50	1497.07	1046.98	20.94	934.80	43.62	1746.58	20.77	54.53	81.80	
1.75	1598.84	1075.48	21.51	960.25	44.81	1865.32	21.34	56.01	84.02	
2.00	1700.62	1103.97	22.08	985.69	46.00	1984.05	21.90	57.50	86.25	
2.25	1802.39	1132.47	22.65	1011.13	47.19	2102.79	22.47	58.98	88.47	
2.50	1904.16	1160.97	23.22	1036.58	48.37	2221.53	23.04	60.47	90.70	
2.75	2005.94	1189.46	23.79	1062.02	49.56	2340.26	23.60	61.95	92.93	
3.00	2107.71	1217.96	24.36	1087.46	50.75	2459.00	24.17	63.44	95.15	
3.25	2209.49	1246.46	24.93	1112.91	51.94	2577.73	24.73	64.92	97.38	
3.50	2311.26	1274.95	25.50	1138.35	53.12	2696.47	25.30	66.40	99.61	
3.75	2413.03	1303.45	26.07	1163.79	54.31	2815.20	25.86	67.89	101.83	
4.00	2514.81	1331.95	26.64	1189.24	55.50	2933.94	26.43	69.37	104.06	
4.25	2616.58	1360.44	27.21	1214.68	56.69	3052.68	26.99	70.86	106.28	
4.50	2718.35	1388.94	27.78	1240.12	57.87	3171.41	27.56	72.34	108.51	
4.75	2820.13	1417.44	28.35	1265.57	59.06	3290.15	28.12	73.82	110.74	
5.00	2921.90	1445.93	28.92	1291.01	60.25	3408.88	28.69	75.31	112.96	
5.25	3023.67	1474.43	29.49	1316.45	61.43	3527.62	29.25	76.79	115.19	
5.50	3125.45	1502.93	30.06	1341.90	62.62	3646.36	29.82	78.28	117.42	
5.75	3227.22	1531.42	30.63	1367.34	63.81	3765.09	30.39	79.76	119.64	

Mile	Material									
	1 Cube Earth/Sand	1 Sq Turfing	1 ft ³ Timber	1 Ton Steel	1 Bag Cement	1 Cube Metal	1 ft long Hume Pipe (Dia. 6", 9", 12")	1 ft long Hume Pipe (Dia. 18", 24")	1 ft long Hume Pipe (Dia. 30", 36")	
6.00	3328.99	1559.92	31.20	1392.78	65.00	3883.83	30.95	81.25	121.87	
6.25	3430.77	1588.42	31.77	1418.23	66.18	4002.56	31.52	82.73	124.09	
6.50	3532.54	1616.91	32.34	1443.67	67.37	4121.30	32.08	84.21	126.32	
6.75	3634.32	1645.41	32.91	1469.11	68.56	4240.03	32.65	85.70	128.55	
7.00	3736.09	1673.90	33.48	1494.56	69.75	4358.77	33.21	87.18	130.77	
7.25	3837.86	1702.40	34.05	1520.00	70.93	4477.51	33.78	88.67	133.00	
7.50	3939.64	1730.90	34.62	1545.44	72.12	4596.24	34.34	90.15	135.23	
7.75	4041.41	1759.39	35.19	1570.89	73.31	4714.98	34.91	91.64	137.45	
8.00	4143.18	1787.89	35.76	1596.33	74.50	4833.71	35.47	93.12	139.68	
8.25	4244.96	1816.39	36.33	1621.77	75.68	4952.45	36.04	94.60	141.91	
8.50	4346.73	1844.88	36.90	1647.22	76.87	5071.19	36.60	96.09	144.13	
8.75	4448.50	1873.38	37.47	1672.66	78.06	5189.92	37.17	97.57	146.36	
9.00	4550.28	1901.88	38.04	1698.11	79.24	5308.66	37.74	99.06	148.58	
9.25	4652.05	1930.37	38.61	1723.55	80.43	5427.39	38.30	100.54	150.81	
9.50	4753.82	1958.87	39.18	1748.99	81.62	5546.13	38.87	102.02	153.04	
9.75	4855.60	1987.37	39.75	1774.44	82.81	5664.86	39.43	103.51	155.26	
10.00	4957.37	2015.86	40.32	1799.88	83.99	5783.60	40.00	104.99	157.49	

Transport by Lorry – In Km

Distance		Material									
km	Mile	1 Cube Earth/Sand	1 Sq Turfing	1 ft ³ Timber	1 Ton Steel	1 Bag Cement	1 Cube Metal	1 ft long Hume Pipe (Dia. 6",9",12")	1 ft long Hume Pipe (Dia. 18",24")	1 ft long Hume Pipe (Dia. 30",36")	
0.25	0.16	950.04	893.81	17.88	798.04	37.24	1108.38	17.73	46.55	69.83	
0.50	0.31	1013.65	911.62	18.23	813.95	37.98	1182.59	18.09	47.48	71.22	
0.75	0.47	1077.25	929.43	18.59	829.85	38.73	1256.80	18.44	48.41	72.61	
1.00	0.63	1140.86	947.24	18.94	845.75	39.47	1331.01	18.79	49.34	74.00	
1.25	0.78	1204.47	965.05	19.30	861.65	40.21	1405.22	19.15	50.26	75.39	
1.50	0.94	1268.08	982.86	19.66	877.56	40.95	1479.43	19.50	51.19	76.79	
1.75	1.09	1331.69	1000.67	20.01	893.46	41.69	1553.64	19.85	52.12	78.18	
2.00	1.25	1395.30	1018.48	20.37	909.36	42.44	1627.85	20.21	53.05	79.57	
2.25	1.41	1458.90	1036.29	20.73	925.26	43.18	1702.06	20.56	53.97	80.96	
2.50	1.56	1522.51	1054.10	21.08	941.16	43.92	1776.27	20.91	54.90	82.35	
2.75	1.72	1586.12	1071.91	21.44	957.07	44.66	1850.48	21.27	55.83	83.74	
3.00	1.88	1649.73	1089.72	21.79	972.97	45.41	1924.69	21.62	56.76	85.13	
3.25	2.03	1713.34	1107.53	22.15	988.87	46.15	1998.90	21.97	57.68	86.53	
3.50	2.19	1776.95	1125.35	22.51	1004.77	46.89	2073.11	22.33	58.61	87.92	
3.75	2.34	1840.56	1143.16	22.86	1020.67	47.63	2147.32	22.68	59.54	89.31	
4.00	2.50	1904.16	1160.97	23.22	1036.58	48.37	2221.53	23.04	60.47	90.70	
4.25	2.66	1967.77	1178.78	23.58	1052.48	49.12	2295.73	23.39	61.39	92.09	
4.50	2.81	2031.38	1196.59	23.93	1068.38	49.86	2369.94	23.74	62.32	93.48	
4.75	2.97	2094.99	1214.40	24.29	1084.28	50.60	2444.15	24.10	63.25	94.87	

Distance		Material									
Mile	1 Cube Earth/Sand	1 Sq Turfing	1 ft ³ Timber	1 Ton Steel	1 Bag Cement	1 Cube Metal	1 ft long Hume Pipe (Dia. 6", 9", 12")	1 ft long Hume Pipe (Dia. 18", 24")	1 ft long Hume Pipe (Dia. 30", 36")		
5.00	3.13	2158.60	1232.21	24.64	1100.19	51.34	2518.36	24.45	64.18	96.27	
5.25	3.28	2222.21	1250.02	25.00	1116.09	52.08	2592.57	24.80	65.11	97.66	
5.50	3.44	2285.82	1267.83	25.36	1131.99	52.83	2666.78	25.16	66.03	99.05	
5.75	3.59	2349.42	1285.64	25.71	1147.89	53.57	2740.99	25.51	66.96	100.44	
6.00	3.75	2413.03	1303.45	26.07	1163.79	54.31	2815.20	25.86	67.89	101.83	
6.25	3.91	2476.64	1321.26	26.43	1179.70	55.05	2889.41	26.22	68.82	103.22	
6.50	4.06	2540.25	1339.07	26.78	1195.60	55.79	2963.62	26.57	69.74	104.61	
6.75	4.22	2603.86	1356.88	27.14	1211.50	56.54	3037.83	26.92	70.67	106.01	
7.00	4.38	2667.47	1374.69	27.49	1227.40	57.28	3112.04	27.28	71.60	107.40	
7.25	4.53	2731.07	1392.50	27.85	1243.30	58.02	3186.25	27.63	72.53	108.79	
7.50	4.69	2794.68	1410.31	28.21	1259.21	58.76	3260.46	27.98	73.45	110.18	
7.75	4.84	2858.29	1428.12	28.56	1275.11	59.51	3334.67	28.34	74.38	111.57	
8.00	5.00	2921.90	1445.93	28.92	1291.01	60.25	3408.88	28.69	75.31	112.96	
8.25	5.16	2985.51	1463.74	29.27	1306.91	60.99	3483.09	29.04	76.24	114.35	
8.50	5.31	3049.12	1481.55	29.63	1322.81	61.73	3557.30	29.40	77.16	115.75	
8.75	5.47	3112.73	1499.36	29.99	1338.72	62.47	3631.51	29.75	78.09	117.14	
9.00	5.63	3176.33	1517.17	30.34	1354.62	63.22	3705.72	30.10	79.02	118.53	
9.25	5.78	3239.94	1534.98	30.70	1370.52	63.96	3779.93	30.46	79.95	119.92	
9.50	5.94	3303.55	1552.79	31.06	1386.42	64.70	3854.14	30.81	80.87	121.31	
9.75	6.09	3367.16	1570.60	31.41	1402.33	65.44	3928.35	31.16	81.80	122.70	
10.00	6.25	3430.77	1588.42	31.77	1418.23	66.18	4002.56	31.52	82.73	124.09	