# AMENDMENT TO THE SUBCONTRACT AGREEMENT

This Amendment to the Subcontract Agreement (hereinafter called as the "Amendment") made on this 31 Oct 2019 in Bismayah Camp near Baghdad Gate, Bismayah City, Iraq shall be made by and between:

**Hanwha Engineering & Construction Corp.,** a company duly organized and existing under the Laws of the Republic of Korea with its registered Iraqi office at Hanwha Bismayah Camp, near Baghdad Gate, Bismayah City, Iraq ("Contractor"),

and

**NoorBaghdad Company**, a company organized and existing under the laws of Iraq having its registered office at Al hureyah sq, karadah, Baghdad, iraq ("Subcontractor").

## - PREAMBLE -

**WHEREAS** Contractor and Subcontractor entered into a Subcontract Agreement on the 21st day May, 2019 (hereinafter called the "Agreement")for [Discharge Pipe Line(Section2)].

**WHEREAS,** Contractor and Subcontractor now intend to amend the Agreement as forth herein.

**NOW, THEREFORE**, in consideration of the foregoing premises and the mutual promises set for the below and intending to be legally bounded hereby, Contractor and Subcontractor agree as follows:

1. Changed a Total Contract Price
   (1) The agreed a total amount is [3,833,078$]
   (2) Retention is Five percent (5%)
   (3) Withholding Tax is three percent (3%)
   (4) Performance Guarantee should be provided: 10% of Contract Price
   (5) The Performance Guarantee shall remain valid from the receipt by the Contractor until thirty (30) days from the date of issue of the Certificate of Acceptance

2. Construction Schedule
   (1) The agreed work should be completed on or before **31 Jul 2020**.
   (2) In case that the Subcontractor will not achieve the agreed Milestones, the same rate and method in No.9 Liquidated Damages for Delay and No.7 Guarantees will be applied to the amount which shall be accomplished at each Milestone.

3. This Amendment shall be an integral part of the Agreement. In case of conflict or discrepancy between Amendment and the Agreement, this Amendment shall take precedence.

4. In this Amendment, words and expressions shall have the same meaning as are respectively assigned to them in the provisions of the Agreement.

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5. This Agreement shall be governed by and construed in accordance with the laws of the Iraq without applying any rules or any laws of conflicts, unless otherwise specified.

6. The payment for the additional quantity of boulder, if any, will be made in accordance with actual quantity to be used by Subcontractor, subject to separate agreement by the parties, at the completion of the Works. Such calculation for payment amount shall be based on the separately agreed unit price, which is no more than USD 45 per meter(1M), and aforementioned unit price shall be reduced depending on actual quantity to be used by Subcontractor.

**IN WITNESS WHEREOF** the parties hereto have caused this Amendment to be executed the day and year first before written in accordance with their respective laws.

For and on behalf of the Contractor:

By: Chang-Sung KIM

Title: Project Management Team Leader
Hanwha Engineering & Construction
Corporation

For and on behalf of the Subcontractor:

By: Raed Kadhim Hasan Al-Shakarchi

Title: Executive Manager
Noorbaghdad Company

## Bill of quantity

| Description | Spec. / Size | Unit | Quantity | Material | | Labor | | Expenses | | Total | | Remark |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | unit price | amount | unit price | amount | unit price | amount | unit price | amount | |
| ◆ Discharge pipe line(Section 2) STA.629+16~800+0 | | | | | 852,498.00 | | 1,318,650.00 | | 138,852.00 | | 2,310,000.00 | |
| 1. Pipe | | | | | 727,748.00 | | 1,239,900.00 | | 78,416.00 | | 2,046,064.00 | |
| 2. Others | | | | | 74,750.00 | | 48,750.00 | | 9,300.00 | | 132,800.00 | |
| 3. Compensation expenses | | | | | 50,000.00 | | 30,000.00 | | 51,136.00 | | 131,136.00 | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| 1. Pipe | | | | | 727,748.00 | | 1,239,900.00 | | 78,416.00 | | 2,046,064.00 | |
| | | | | | | | | | | | | |
| 1.1 Earth work | | | | | 377,844.00 | | 714,840.00 | | 20,424.00 | | 1,113,108.00 | |
| Excavation | | m | 3,404 | | | 130.00 | 442,520.00 | 2.00 | 6,808.00 | 132.00 | 449,328.00 | |
| Backfill(above the 30cm top pipe) | soil, layer compaction, FDT 95% | m | 3,404 | 26.00 | 88,504.00 | 35.00 | 119,140.00 | 2.00 | 6,808.00 | 63.00 | 214,452.00 | |
| Backfill(below the 30cm top pipe) | subbase, layer compaction, visual check | m | 3,404 | 85.00 | 289,340.00 | 45.00 | 153,180.00 | 2.00 | 6,808.00 | 132.00 | 449,328.00 | |
| | | | | | | | | | | | | |
| 1.2 Structure | | | | | 118,400.00 | | 63,600.00 | | 7,144.00 | | 189,144.00 | |
| Gate valve Chamber | 6.5 x 5.5 x 3.2(variable) | EA | 4 | 18,000.00 | 72,000.00 | 10,700.00 | 42,800.00 | 1,025.00 | 4,100.00 | 29,725.00 | 118,900.00 | |
| Air valve chamber | 2.5 x 2.0 x 2.2(variable) | EA | 4 | 4,600.00 | 18,400.00 | 1,800.00 | 7,200.00 | 410.00 | 1,640.00 | 6,810.00 | 27,240.00 | |
| Blow off pipe chamber | 2.0 x 1.5 x 6.0(variable) | EA | 4 | 7,000.00 | 28,000.00 | 3,400.00 | 13,600.00 | 351.00 | 1,404.00 | 10,751.00 | 43,004.00 | |
| | | | | | | | | | | | | |
| 1.3 Pipe laying | | | | | 111,504.00 | | 407,460.00 | | 44,848.00 | | 563,812.00 | |
| G.R.P pipe | D1600mm, include fittings | m | 3,404 | 13.00 | 44,252.00 | 55.00 | 187,220.00 | 6.00 | 20,424.00 | 74.00 | 251,896.00 | |
| G.R.P pipe | D1800mm, include fittings | m | 3,404 | 13.00 | 44,252.00 | 60.00 | 204,240.00 | 6.00 | 20,424.00 | 79.00 | 268,916.00 | |
| HDPE pipe | Inside chamber | l/s | 1 | 1,000.00 | 1,000.00 | 2,000.00 | 2,000.00 | 500.00 | 500.00 | 3,500.00 | 3,500.00 | |
| DCIP pipe | Inside chamber | l/s | 1 | 1,000.00 | 1,000.00 | 2,000.00 | 2,000.00 | 500.00 | 500.00 | 3,500.00 | 3,500.00 | |
| All kind of Valves install | Inside chamber | l/s | 1 | 1,000.00 | 1,000.00 | 2,000.00 | 2,000.00 | 1,000.00 | 1,000.00 | 4,000.00 | 4,000.00 | |
| Water pressure test | D1600mm | l/s | 1 | 10,000.00 | 10,000.00 | 5,000.00 | 5,000.00 | 1,000.00 | 1,000.00 | 16,000.00 | 16,000.00 | |
| Water pressure test | D1800mm | l/s | 1 | 10,000.00 | 10,000.00 | 5,000.00 | 5,000.00 | 1,000.00 | 1,000.00 | 16,000.00 | 16,000.00 | |
| | | | | | | | | | | | | |
| 1.4 Crossing works | | | | | 120,000.00 | | 54,000.00 | | 6,000.00 | | 180,000.00 | |
| Road crossing area | | EA | 2 | 10,000.00 | 20,000.00 | 5,000.00 | 10,000.00 | 1,000.00 | 2,000.00 | 16,000.00 | 32,000.00 | |
| Channel crossing area | | EA | 2 | 50,000.00 | 100,000.00 | 22,000.00 | 44,000.00 | 2,000.00 | 4,000.00 | 74,000.00 | 148,000.00 | |
| | | | | | | | | | | | | |
| 2. Others | | | | | 74,750.00 | | 48,750.00 | | 9,300.00 | | 132,800.00 | |
| overhead cost | | l/s | 1 | 50,000.00 | 50,000.00 | 24,000.00 | 24,000.00 | 6,000.00 | 6,000.00 | 80,000.00 | 80,000.00 | |
| profit | | l/s | 1 | 24,750.00 | 24,750.00 | 24,750.00 | 24,750.00 | 3,300.00 | 3,300.00 | 52,800.00 | 52,800.00 | |
| | | | | | | | | | | | | |
| 3. Compensation expenses | | | | | 50,000.00 | | 30,000.00 | | 51,136.00 | | 131,136.00 | |
| compensation expenses | | l/s | 1 | 50,000.00 | 50,000.00 | 30,000.00 | 30,000.00 | 51,136.00 | 51,136.00 | 131,136.00 | 131,136.00 | |

General Manager
Raed Kadhim Hasan Al-Shakarchi
Noor Baghdad Company

# Construction Schedule (Zone2_Phase2)

| Division | | | Start Date | End Date | Duration |
|---|---|---|---|---|---|
| Discharge Line (Zone2) | | Survey | 1-Jan | 22-Jul | 204 |
| | Excavation | ST 629 ~ 661 | 4-Jan | 28-Jan | 25 |
| | | ST 662 ~ 700 | 29-Jan | 24-Feb | 27 |
| | | ST 700 ~ 769 | 15-Feb | 30-Mar | 45 |
| | | ST 769 ~ 800 | 31-Mar | 5-May | 36 |
| | Bedding | ST 629 ~ 661 | 17-Jan | 5-Feb | 20 |
| | | ST 662 ~ 700 | 6-Feb | 26-Feb | 21 |
| | | ST 700 ~ 769 | 27-Feb | 31-Mar | 34 |
| | | ST 769 ~ 800 | 15-Apr | 16-May | 32 |
| | Pipe Installation | ST 629 ~ 661 | 3-Feb | 14-Feb | 12 |
| | | ST 662 ~ 700 | 15-Feb | 10-Mar | 25 |
| | | ST 700 ~ 769 | 8-Mar | 12-Apr | 36 |
| | | ST 769 ~ 800 | 12-May | 2-Jun | 22 |
| | Initial Backfilling | ST 629 ~ 661 | 14-Feb | 3-Mar | 19 |
| | | ST 662 ~ 700 | 27-Feb | 19-Mar | 22 |
| | | ST 700 ~ 769 | 29-Mar | 28-Apr | 31 |
| | | ST 769 ~ 800 | 27-May | 18-Jun | 23 |
| | General Backfilling | ST 629 ~ 661 | 20-Feb | 15-Mar | 25 |
| | | ST 662 ~ 700 | 7-Mar | 31-Mar | 25 |
| | | ST 700 ~ 769 | 25-Apr | 29-May | 35 |
| | | ST 769 ~ 800 | 22-Jun | 21-Jul | 30 |
| | Concrete Work | Check Valve ST 650 | 16-Jan | 15-Feb | 31 |
| | | Gate Valve ST 700 | 21-Feb | 22-Mar | 31 |
| | | Check Valve ST 750 | 12-Mar | 11-Apr | 31 |
| | | Gate Valve ST 800 | 26-Apr | 24-May | 30 |
| | | Air Valve ST 684 | 4-Mar | 29-Mar | 26 |
| | | Blow Off ST 662 | 14-Feb | 9-Mar | 25 |
| | | Blow Off ST 770 | 1-Apr | 25-Apr | 25 |
| | | Elbow ST 667+1(11°) | 17-Feb | 28-Feb | 12 |
| | | Elbow ST 670+1 (11°) | 25-Feb | 7-Mar | 12 |
| | | Elbow ST 671 (11°) | 27-Feb | 9-Mar | 12 |
| | | Elbow ST 701 (11°) | 10-Mar | 21-Mar | 12 |
| | | Elbow ST 702 (11°) | 12-Mar | 23-Mar | 12 |
| | | Elbow ST 734 (22°) | 24-Mar | 4-Apr | 12 |
| | | Elbow ST 758+2 (22°) | 26-Mar | 6-Apr | 12 |
| | | Elbow ST 748+1 (11°) | 4-Apr | 16-Apr | 12 |
| | | Elbow ST 762+3 (11°) | 11-Apr | 22-Apr | 12 |

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