

**CORRIGENDUM NO.1**  
**To the**  
**TENDER DOSSIER**

**Subject:** Construction for Establishment of Common Use Ateliers in TRB2 Region  
**Publication Reference Number:** NEAR/ANK/2020/EA-LOP/0053

The Tender Dossier is corrected or modified as follow:

VOLUME 1, SECTION 1:  
INSTRUCTIONS TO TENDERERS

Instead of:

1.2. Timetable

	DATE	TIME*
...	...	...
<b>Tender opening session</b>	15.02.2021	2:00 p.m.
...	...	...

Read:

1.2. Timetable

	DATE	TIME*
...	...	...
<b>Tender opening session</b>	15.02.2021	10:00 a.m.
...	...	...

Instead of:

12.2 2) Technical and professional capacity of candidate

Similar Works Experience:

...

the conversion to EUR shall be made in accordance with the InforEuro exchange rate of  
**December 2020 ...**

Read:

12.2 2) Technical and professional capacity of candidate

Similar Works Experience:

...

the conversion to EUR shall be made in accordance with the InforEuro exchange rate of  
**February 2021 ...**

**TECHNICAL SPECIFICATIONS FOR CONSTRUCTION OF BİTLİS, ERCİŞ and MUŞ**  
**ATELIER**

**Volume 3 - Technical Specifications for Bitlis, Erciş and Muş Ateliers**

## **Point 1: Item Description of Architecture Works ARC9**

### **Instead of:**

...

#### **5.1.3 Water**

Water that confirm to the Standard TS EN 1008 shall be used in manufacturing prefabricated and pre-tensioned elements. The water shall not contain acid, oil, salt, alkali and organic materials.

### **Read:**

ARC9

Prefabricated Reinforced Concrete Manufacturing and Substitution Using C30/37 Ready Mixed Concrete

M3

...

#### **5.1.3 Water**

Water that confirm to the Standard TS EN 1008 shall be used in manufacturing prefabricated and pre-tensioned elements. The water shall not contain acid, oil, salt, alkali and organic materials.

The industrial wastewater generated in the production facilities can be recovered after the necessary treatment and re-used as concrete mixing water if the quality meets the requirements given in TS EN 1008 standard.

Cements that confirm to the Standard TS EN 197-1/A3 shall be used in manufacturing prefabricated and pre-tensioned elements.

Coarse and fine aggregates that conform to the Standard TS 706 EN 12620+A1 3 shall be used in manufacturing prefabricated and pre-tensioned elements.

Natural and crushed sands used in production shall also be washed and sieved.

Water that confirm to the Standard TS EN 1008 shall be used in manufacturing prefabricated and pre-tensioned elements. The water shall not contain acid, oil, salt, alkali and organic materials. The industrial wastewater generated in the production.

#### **5.1.4 Reinforcements and Pre-stressing Steel**

Reinforcements that confirm to the mechanical and chemical properties in Standard TS 500, and Turkish Seismic Code (2018) shall be used in manufacturing prefabricated and pre-tensioned elements. From this point of view, S220 straight bars, B420C ribbed bars, and B500 wire meshes that were determined in TS 708 /April 2010 shall be used.

#### **Strength Values of Steels to be used in Production:**

##### **Reinforcement**

Ribbed Bars that belongs to B420C class defined in TS 708 must have minimum 420 N/mm<sup>2</sup> yield strength. Straight Bars that belongs to S220 class defined in TS 708 shall have minimum 220 N/mm<sup>2</sup> yield strength and 340 N/mm<sup>2</sup> tensile strength.

### **5.1.5 Chemical Additives**

Chemical additives with various specifications might be used in production of prefabricated and pre-tensioned elements. Used chemical additive shall not give damage to the reinforcement, or prestressing steel. Pre-experiments shall be satisfied in the laboratory in order to determine the type of chemical additive which is compatible with the cement.

### **5.1.6 Mineral Additives**

In production of prefabricated elements being in compatible with the purpose, one or more of the mineral additives such as silica fume, fly ash or ground slag may be used. Chemical additives with various specifications might be used in production of prefabricated and pre-tensioned elements.

### **5.1.7 Fibers**

In the production of prefabricated and pre-tensioned reinforced concrete structural elements, in addition to the high strength properties of concrete, steel, propylene or glass fibers shall be used in order to increase crack tensile strength and to obtain high resistance against dynamic loads, sudden impacts and fire effects.

### **5.1.8 Anchors, Other Embedded Elements and Holes**

In the connection details of prefabricated and pre-tensioned concrete elements, various types of bolts and threaded couplers can be used in order to increase the mounting speed. However, the technical characteristics of such fasteners shall be verified by manufacturer certificates or tests. Standard bolts shall confirm to TS 1033 and TS 1034 standards. High strength bolts must comply with the requirements of the manufacturer's catalogs. They are often used to create a frictional force by compression. The dowels are placed in the holes drilled in the hardened concrete. Two types of expansion and chemical dowels shall be used in accordance with the recommendations of the manufacturer. Embedded anchors and studs shall consist of a main part to be screwed or welded to other connection elements that made of steel, and a steel element which is welded to this main part in order to ensure adherence to the concrete. In order to ensure ductile behavior, it shall be ensured that such fasteners have good adherence with concrete and that the breakage of the connection starts in steel before concrete. Exposed joints of anchors and studs that did not covered with grout mortar shall be galvanized or painted with suitable paint against corrosion.

I and U section steel plates with bearing properties can be used, in connection details of prefabricated elements. Steel plates shall have minimum thickness of 4 mm. Care shall be taken to the anchor elements of steel plates. Welding of bearing steel connections and of the anchors shall comply with TS 3357. Embedded sleeves, threaded cavities, pipes, lifting bars or ropes and threaded bolts shall be left on the element in a number and strength suitable for the project in order to remove from the mold, lift, transport, mounting and fix the prefabricated elements. Whole elements shall be galvanized.

### **5.1.9 Mold**

The molds used in the production of prefabricated elements shall be made from steel or wood or alternative materials such as polyester and GRP, which are not affected by the reaction of the reinforced cement so as to meet the hydrostatic pressure of the concrete at the initial situation and to keep the project dimensions.

The surfaces of the molds shall be smooth enough to minimize surface defects in the product. The molds shall be oil with mold oil before each production. Concrete casting method shall be determined by considering the shapes of the elements in order to prevent air gaps on the surfaces of the products. Permissible defects that may occur on the molds over time shall be repaired by a suitable method.

### **5.1.10 Elastomeric Support Elements**

During mounting phase in connections that prefabricated elements sit on each other, elastomeric supports are used in order to ensure load distribution. Elastomeric bearings reduce stresses by allowing movements and rotations in the horizontal plane. Some elastomeric bearings that can be used in the supports are given below.

**Neoprene supports;** although these supports have lower strength in vertical direction, their freedom of movement in other directions is higher than other supports. Steel reinforced neoprene supports shall be used in order to increase the load bearing capacity.

**Randomly fibered supports;** these supports have higher strength, but their freedom of movement in horizontal and moment directions is lower than other supports.

**Cotton fibered supports;** these supports have cotton layers and also higher strength.

**Steel or Glass Fibered supports**

**Teflon Fibered supports;** these supports increase the horizontal freedom of movements by allowing shear.

**Coated Chipboard;** especially used in the supports of hollow core slab elements. Additional care shall be given when using in humid environment.

**Multimonomer plastic supports;** especially used in the supports of hollow core slab elements. Compressive strength is higher than that of concrete. All the materials esp. main raw materials purchased by the sub-contractor shall be CE certified.

## **5.2 LABOR**

### **5.2.1 Concrete Class**

Prefabricated and pre-tensioned elements shall be fabricated according to the static calculations. The mixture of the concrete to be used in production shall be determined by trial production in the laboratory before production, and the same concrete quality level shall be ensured continuously in mass production.

### **5.2.2 Mold Works**

Prefabricated and pre-tensioned elements shall be fabricated according to the static calculations. The mixture of the concrete to be used in production shall be determined by trial production in the laboratory before production, and the same concrete quality level shall be ensured continuously in mass production.

Molds shall have adequate tolerances and quality in order to ensure that the elements are produced in the dimensions specified in the project. The molds shall always be kept clean, oiled, and cleaned from concrete residues for a new use. The mold oil that is used shall be selected as a result of tests in such a way that it does not give color to the concrete and does not leave pores. Reinforcement shall be kept clean during the application of mold oil. Concrete cover wedges shall be used while placing the reinforcement. Sealing joints shall be used at the joints of the molds in order to prevent the leakage of cement grout. Necessary measures shall be taken to prevent the formation of bubbles in the sections where air bubbles likely to be occurring.

### **5.2.3 Placement of Reinforcement and Steel Anchorages**

The reinforcement of the prefabricated elements shall be prepared in the appropriate cross-sections and quantities specified in the project and shall be placed in the mold, taking into account the dimensions of the cover specified in the project.

The steel anchor plates, which provide the connections of the elements, shall be placed in the places specified in the project and their connections with the reinforcement shall be provided. The gaps and holes to be left on the elements shall be at the location and size shown in the project.

### **5.2.4 Concrete Mixing**

Concrete shall be produced in plants that operate on a weighing basis and whose weighing systematic is periodically controlled. The materials shall be weighed in a certain order and taken to the pan mixer and mixed until a homogeneous mixture is obtained. The mixing process shall be continued after the addition of cement, water and additive and shall continue until a homogeneous consistency is obtained.

#### **5.2.5 Transport, Pouring and Compaction of Concrete**

The concrete produced in the power plant shall be transported to the casting site by means of suitable transport vehicles (conveyor buckets, conveyor belts, transmixers and transport trolleys) in a way that does not cause segregation.

The concrete shall be designed in such a way as to maintain its processability for the period to be spent in this process, taking into account the specified method for transportation and placement in the formwork.

Concrete shall be poured into molds continuously, filled and spread. If concrete is poured gradually into the mold, sufficient vibration shall be made and the layers shall be mixed with each other in a healthy way. Cold joint formation during casting shall be prevented.

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All concretes shall be compacted with vibrators having frequency appropriate to the properties of concrete. For the smoothness of the concrete surfaces, mold vibrators shall be used to ensure homogeneous mixing mounted outside the mold. These vibrators should have 6000-10.000 fps engine speed. If necessary, immersion vibrators and surface vibrators shall be used in addition to the mold vibrators.

In the case of self-compacting concretes that do not require vibrators, necessary measures shall be taken to produce concrete elements of the quality described above.

#### **5.2.6 Curing of Concrete**

The concrete produced in the power plant shall be transported to the casting site by means of suitable transport vehicles (conveyor buckets, conveyor belts, transmixers and transport trolleys) in a way that does not cause segregation.

The concrete shall be designed in such a way as to maintain its processability for the period to be spent in this process, taking into account the specified method for transportation and placement in the formwork.

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In the case of self-compacting concretes that do not require vibrators, necessary measures shall be taken to produce concrete elements of the quality described above. Curing of prefabricated and pre-stressed elements shall be carried out in accordance with the rules defined in article 4.2.1.3 of TS EN 13369 standard.

If steam curing created at atmospheric pressure applied, in order to accelerate the hardening process of the concrete, Turkey Precast Concrete Association's "Curing Regulation for prefabricated elements" TS shall be performed according to EN 13369 standard of 4.2.1.4.

If the strength development is accelerated by applying steam curing, the products shall be allowed to

wait at least 2 hours depending on the air temperature.

At the end of the pre-waiting time, taking into account the internal ambient temperature, the temperature shall be increased at a speed of 10-20 ° C per hour in order to reach the targeted curing temperature.

The curing temperature shall be uniformly maintained for a sufficient period of time in order to achieve the targeted early strength. Cooling shall also be done not immediately, but by gradually lowering the temperature.

In addition, necessary measures shall be taken in order to prevent unevenness or stains on concrete surfaces.

### **5.2.7 Surface Quality**

The surface forms of the prefabricated elements shall be homogeneous in color and brightness. There shall be no difference in roughness and brightness on the internal and tooth surfaces of the elements. The same sensitivity shall be provided on unformed concrete surfaces.

### **5.2.8 Surface Texture**

The visible surfaces of the prefabricated elements shall be steel molded and shall look like gross concrete.

### **5.2.9 Taking from Mold**

The surface forms of the prefabricated elements shall be homogeneous in color and brightness. There shall be no difference in roughness and brightness on the internal and tooth surfaces of the elements. The same sensitivity shall be provided on unformed concrete surfaces.

The visible surfaces of the prefabricated elements shall be steel molded and shall look like gross concrete.

Prefabricated and pre-stressed elements shall be removed from the mold after it has been determined that it has reached the removal strength or pre-stress transfer strength determined by structural design analysis.

In order to remove the prefabricated elements from the mold, suitable embedded lifting parts, lifting rings, wire rope nodes or hooks shall be left on the elements as shown in the project.

## **6.0 EXPERIMENTS**

### **6.1 Concrete Compressive Strength Check**

In order to determine the compressive strength of the produced prefabricated elements, cube or cylinder samples shall be taken in the amounts specified in TS 500 and TS EN 206 standards depending on the amount of concrete produced.

The taken samples shall be cured under the same conditions with the produced element. Compressive strength tests shall be carried out in accordance with the TS EN 12390-3 standard at the age of 7 and 28 days during the demoulding of the elements or transfer of pre-stressing.

If the strength results do not meet the required limits or the sample strengths of 7 to 28 days are below the values given in TS 500 or TS EN 206 standards of the concrete class defined for the product, if the employer agrees, strength shall be determined by Non-Destructive Loading Test and/or Schmidt Rebound Hammer Test.

If the results do not meet the required limits, such elements shall be rejected.

## **7.0 IDENTIFICATION, STORAGE, TRANSPORTATION, AND MOUNTING OF PREFABRICATED ELEMENTS**

### **7.1 Identification of Prefabricated Elements**

**7.1.1.** The name of the manufacturer firm, the date of production, the name of the project to which it belongs, and the item number indicated in the project shall be clearly written on the produced elements. In order to avoid any misunderstanding, the places of the elements in the project shall be specified clearly. Elements with same dimensions shall be defined separately if the reinforcement, the concrete class or the concrete cover is different.

## **7.2 Storage of Prefabricated Elements**

**7.2.1.** After the completion of the necessary surface correction or repair works to eliminate surface defects, the finished elements shall be stocked in the stock area by using wooden wedges at suitable distances. The elements in the stock area may be stocked on top of each other depending on their size and other features. Storage must not be made directly on the ground. During the stocking process, damage to the lifting hooks of the elements or hitting the other elements in the stock shall prevent the formation of edge and corner breaks.

## **7.3 Transportation of Prefabricated Elements**

**7.3.1.** Prefabricated elements shall be transported by using appropriate tools according to their length and weight. For this purpose, trucks, trailers, dolly, special trailers and similar vehicles can be used.

**7.3.2.** The elements shall be loaded onto the transport vehicles in accordance with the above-mentioned stocking conditions and shall be supported according to the structural working system, type and length after installation.

**7.3.3.** The prefabricated elements can be placed on top of each other, taking into account their type and length, road and vehicle conditions, provided that they are separate from each other as described above. The wooden spacers shall be in the same vertical alignment.

**7.3.4.** Prefabricated elements shall be fixed to the vehicle body with wooden wedges and if necessary, they shall be attached to the carrier vehicle body with steel ropes in a suitable manner to prevent sideways sliding.

## **7.4 Mounting of Prefabricated Elements**

**7.4.1.** Installation shall be carried out by experienced personnel under the supervision of a responsible engineer or an installation technician according to the scope of the work.

**7.4.2.** Experienced personnel, equipment and equipment shall be used in assembly works.

**7.4.3.** The special methods and tools used during the holding, lifting, stocking and placing of the prefabricated elements shall be planned by checking the resistance of the elements against these operations and not to give any impact load to the mentioned elements.

**7.4.4.** During the installation of prefabricated elements, all the details in the projects shall be applied. If there is a welded connection in the system, suitable electrode shall be used in welding processes and the suitability of the welding thicknesses to the project shall be checked.

**7.4.5.** The elevations given in the project of the places where the prefabricated elements shall sit shall be checked with the topographic instrument and the errors of elevations exceeding 2 cm shall be removed by using grout mortar. Special self-settling grout mortar which does not shrink shall be used at the joints of the prefabricated elements. These mortars shall be prepared in accordance with the application instructions given by the manufacturer.

**7.4.6.** The joint concretes poured in the construction site shall also be as stipulated in the project and the poured concrete shall be sufficiently compacted and placed. If admixture and fluidity enhancing additives are used in these concretes, the compatibility of these additives with the specifications defined in the relevant standards shall be sought.

**7.4.7.** The permissible surface defects occurred in the products during transport and / or assembly shall be repaired using a ready-mixed mortar with high adherence.

**7.4.8.** Prefabricated elements shall be protected from excessive vibration during storage or assembly

**7.4.9.** Mounting of elements that are severely damaged shall not be done.

**7.4.10.** During assembly, even if for a short period of time, the elements to be left disconnected, safety measures against tipping shall be taken.

## 8.0 MEASURING TOLERANCES AND COVER CONCRETE THICKNESSES

**8.1.** Concrete cover thicknesses shall comply with the requirements of TS 500, TS 3233 and TS EN 1992-1-1

**8.2.** Sufficient wedge shall be placed at the required points of the reinforcement to ensure the thickness of the cover concrete provided in the project of the element.

**8.3.** Size and assembly tolerances of the prefabricated building elements shall be appropriate to the "Turkey Precast Concrete Association - Tolerance Regulations".

	Building Element	Definition Size (m), Boundary Tolerance Values (mm)							
		$\leq 1.5$	$>1.5 \leq 3$	$>3 \leq 6$	$>6 \leq 10$	$>10 \leq 15$	$>15 \leq 22$	$>22 \leq 30$	$>30$
1	Red-shaped structure Lengths of the element (column, beam, truss)	$\pm 10$	$\pm 12$	$\pm 14$	$\pm 16$	$\pm 18$	$\pm 20$	$\pm 22$	$\pm 24$
2	Floor plates and Wall boards Length and widths	$\pm 10$	$\pm 12$	$\pm 14$	$\pm 16$	$\pm 18$	$\pm 20$	$\pm 22$	$\pm 24$
3	Pre-stressed structures Lengths of the element	-	-	$\pm 20$	$\pm 22$	$\pm 24$	$\pm 8$	$\pm 32$	$\pm 36$
4	Facade panels Length and widths	$\pm 8$	$\pm 10$	$\pm 12$	$\pm 14$	-	-	-	-

**Chart 8.1:** Boundary Tolerance Values of Length and Width Measures

	Building Element	$\leq 1.5$	$> 0.15 \leq 0.30$	$> 0.30 \leq 0.6$	$> 0.6 \leq 1.0$	$> 1.0 \leq 1.5$	$> 1.5$
		$\pm 6$	$\pm 10$	$\pm 10$	-	-	-
1	Floor plates thickness	$\pm 6$	$\pm 10$	$\pm 10$	-	-	-
2	Wall and Facade panels thickness	$\pm 6$	$\pm 10$	$\pm 10$	-	-	-
3	Rod-shaped structure Lengths of the element (column, beam, truss)	$\pm 6$	$\pm 10$	$\pm 10$	$\pm 12$	$\pm 16$	$\pm 20$

**Chart 8.2:** Boundary Tolerance Values of Section Dimensions



## **9.0 RECIPES OF MANUFACTURING**

Descriptions of prefabricated manufacturing are given below. The contractor shall make the production of prefabricated elements of the structures given in the general dimensions (column locations, gabaries etc.) in the projects according to the projects.

### **9.1. Prefabricated Columns**

Prefabricated columns with determined heights shall be at the places shown in the projects. The concrete faces of the anchoring part at the lower end of each column shall be manufactured as rough.

Prefabricated columns, inserts for the fixation of floor and roof beams and wall panels shall also include rods, anchor plates and other embedded materials and embedded parts required for fixing the steel structures of the equipment to be mounted on the roof surface.

The columns shall be placed in the existing sockets by taking mounting position. After being fixed with wedges by means of plumbing with the tool in both directions, fine aggregate C30 quality filling concrete shall be poured and the columns shall be fixed to the foundation.

### **9.2. Prefabricated Floor Beams**

Prefabricated reinforced concrete beams with min C 35 (35 MPa) concrete class, shall provide at least 20 MPa mold receiving strength.

Reinforcement distribution of beams shall be convenient with its project.

Beams should contain all the embedded components and necessary accessories for installation.

### **9.3. Roof Beams**

The roof beams shall be in the form which shown in the projects and of the quality available in structural analysis and production projects. (C40-C50 for pre-stressed elements).

Roof beams also should have the necessary reinforcement, anchor parts, embedded materials and accessories as shown in the projects and as requested by the engineer. The bolt slots shall be filled with grout.

In hinged connections, pin holes shall be placed in the beams in convenient with its project. Elastomer supports shall be used during mounting phase. After mounting, the pin holes shall be filled with grout material.

### **9.4. Roof Purlins**

The roof purlins shall be in the form which shown in the projects and of the quality available in structural analysis and production projects. Purlins shall include all accessories and embedded materials as shown in the projects.

The purlins shall be placed and fixed on existing roof beams as shown in the projects. Pin holes shall be filled with grout material.

**Instead of;**

ARC53

8 cm stone wool fillertop and bottom 0.65 mm trapezoidal. colored galvanized sheet, heatinsulated (sandwich) interlock roofing.

M2

Thermal insulation shall be made on the existing wooden, steel, reinforced concrete beam or purlin roof and painted on the vapor balancer with 0.65 mm fabrication roller painting system. It is necessary to install a Z profile purlin (with 60 cm spacing) of 1,50 mm galvanized sheet to be used as an intermediate spacer and 8 cm thick stone wool to be used for insulation. A 0.50 mm steam breaker and stabilizer shall be laid. The top coat shall be painted with a 0.65 mm thick fabrication roller painting system and the appropriate stages shall be completed and a clamped sandwich roofing system is required. For all these, all materials and casualties, labor, contractor overhead and profit shall be included and the price shall be calculated in m2.

SIZE: Calculated on the slope surface.

NOTE: Applied with the written permission of the administration.

**Read;**

ARC53

8 cm stone wool fillertop and bottom 0.65 mm trapezoidal. colored galvanized sheet, heatinsulated (sandwich) interlock roofing and facade system.

M2

Thermal insulation shall be made on the existing wooden, steel, reinforced concrete beam or roof purlin and painted on the vapor balancer with 0.65 mm fabrication roller painting system. It is necessary to install a Z profile purlin (with 60 cm spacing) of 1,50 mm galvanized sheet to be used as an intermediate spacer and 8 cm thick stone wool to be used for insulation. A 0.50 mm steam breaker and stabilizer shall be laid. The top coat shall be painted with a 0.65 mm thick fabrication roller painting system and the appropriate stages shall be completed and a clamped sandwich facade and roofing system is required. For all these, all materials, scaffolding and casualties, labor, contractor overhead and profit shall be included and the price shall be calculated in m2.

SIZE: Calculated on the slope surface.

NOTE: Applied with the written permission of the administration.

**Point 3: Item Description of Architecture Works ARC63**

**Instead of;**

ARC63

SMOKE DRAIN CHIMNEY

PCS

Standard smoke chimney sucking all the smoke away of the interest region.

**Read;**

ARC63

SMOKE VENT

PCS

Standard smoke vent sucking all the smoke away of the related region. The vents shall operate manually.

**Point 4: Item Description of Architecture Works ARC64**

**Instead of;**

ARC64 Silicone based water based exterior paint KG RTV silicone based paint for better adhesion and durability against weather and sun.
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**Read;**

ARC 64 Silicone based water based exterior paint M2 RTV silicone based paint for better adhesion and durability against weather and sun.
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**Point 5: Item Description of Architectural Works ARC63-2**

**Instead of;**

...

ARC63 SMOKE DRAIN CHIMNEY PCS
Standard smoke chimney sucking all the smoke away of the interest region.

**Read;**

...

ARC63 SMOKE DRAIN CHIMNEY PCS
Standard smoke chimney sucking all the smoke away of the interest region.

Item No	ARC63-2		
Description	Q 90 mm Galvanized Extruded Steel Downspout	Unit:	MT
Title			
Specification	<p>It is the price for 1 mt including the following: Before the assembly o gutter, which is made of 2 mm galvanized steel and which is bent using painted sheet steel with 90 cm section in compliance with the design and the specifications, fixing the downspout points, first, assembling the downspout chambers under the eaves, assembly of gutter joint parts in line with the rope having 1/300 slope (min. 1/600) that is laid from the downspout chambers to the eaves butt, assembly of downspout brackets in line with the laid rpe (a bracket must be made once every 50 cm., as maximum, and one bracket must be used in front of and behind the joining parts with a distance of 10cm.), laying one layer of bituminous cardboard under the skirt, tightly assembling all parts of the gutter to the concrete using wall plugs and to the wood using woodscrews, lubricating rubber gaskets using machine oil, assembly of gutters t the brackets and joining parts, and thereafter assembly of corner turns and gutter taps; and any kind of workmanship, materials and material losses, machinery, instrument and tool expenses and horizontal and vertical handling at the worksite and any kind of loading, unloading and windrow expenses, contractor's profit and overheads.</p>		

#### **Point 6: Item Description of Landscape Works**

##### **Instead of:**

...

<p>LSCP36 Exterior diameter Ø 110 mm, glass-fiber reinforced pre-insulated pipe, bearer PPR-C pipe mention size Ø 40 M</p>
<p>Work of pre-insulated pipes with PPR-C carrying pipes manufactured in accordance with TS EN 253 + A2, can be buried underground, with polyurethane heat insulation, high density polyethylene (HDPE) outer casing, glass fiber reinforced PN 25 pressure class according to TS 13715 on-site supply and installation. (including labor, fittings and fixing materials)</p>

##### **Read:**

...

<p>LSCP36 Exterior diameter Ø 110 mm, glass-fiber reinforced pre-insulated pipe, bearer PPR-C pipe mention size Ø 40 M</p>
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Work of pre-insulated pipes with PPR-C carrying pipes manufactured in accordance with TS EN 253 + A2, can be buried underground, with polyurethane heat insulation, high density polyethylene (HDPE) outer casing, glass fiber reinforced PN 25 pressure class according to TS 13715 on-site supply and installation. (including labor, fittings and fixing materials)

<b>Item No</b>	LSCP37		
<b>Description</b>	Steam Cured 500 ds. Pref. Base Component. Parcel Chimney Formation (H=0.60 mt., Rubber Seal Joint)	<b>Unit:</b>	PCS
<b>Title</b>			
<b>Specification</b>	<p>Preparing the steam cured parcel chimney prefabricated base components which have been purchased following all relevant tests being done prior to the approval of the consultancy so that they are ready for use near the excavation site, taking it from the side of the chimney excavation site and leveling it, lowering it to the foundation bed of which the foundation has been stabilized and fitted in accordance with the project thus including all expenses such as labor, machinery, equipment, tools, horizontal and vertical moving, loading, unloading, equipment and decrement costs as well as the contractor profit and general expenditures (Only excluding the moving of the cement, sand and gravel which goes into the manufacturing of steam cured parcel chimney prefabricated base components to the construction depot, the loading, unloading and stacking costs regarding this transfer as well as the moving of the manufactured steam cured parcel chimney prefabricated base components within the construction site and the relevant loading, unloading as well as stacking costs associated with this transfer.) the price of the 500 dose steam cured parcel chimney prefabricated base component h=0.60 mt. in height as well as the chimney formation; per 1 piece:</p>		

<b>Item No</b>	LSCP38		
<b>Description</b>	Steam Cured 500 Ds. Pref. Body Component. Parcel Chimney Formation (H=0.50 Mt., 600 Ds. Mortar Joint)	<b>Unit:</b>	PCS
<b>Title</b>			

<b>Specification</b>	Preparing the steam cured parcel chimney prefabricated body components which have been purchased following all relevant tests being done prior to the approval of the consultancy so that they are ready for use near the excavation site, taking it from the side of the chimney excavation site and fitting it to the foundation bed in accordance with the project thus including all expenses such as labor, machinery, equipment, tools, horizontal and vertical moving, loading, unloading, equipment and decrement costs as well as the contractor profit and general expenditures (Only excluding the moving of the cement, sand and gravel which goes into the manufacturing of steam cured parcel chimney prefabricated body components to the construction depot, the loading, unloading and stacking costs regarding this transfer as well as the moving of the manufactured steam cured parcel chimney prefabricated body components within the construction site and the relevant loading, unloading as well as stacking costs associated with this transfer.) the price of the 500 dose steam cured parcel chimney prefabricated body component along with the chimney formation; per 1 piece:		
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<b>Item No</b>	LSCP39		
<b>Description</b>	Steam Cured 500 Ds. Pref. Body Component. Parcel Chimney Formation (H=0.25 Mt.,600 Ds. Mortar Joint)	<b>Unit:</b>	<b>PCS</b>
<b>Title</b>			
<b>Specification</b>	Preparing the steam cured parcel chimney prefabricated body components which have been purchased following all relevant tests being done prior to the approval of the consultancy so that they are ready for use near the excavation site, taking it from the side of the chimney excavation site and fitting it to the foundation bed in accordance with the project thus including all expenses such as labor, machinery, equipment, tools, horizontal and vertical moving, loading, unloading, equipment and decrement costs as well as the contractor profit and general expenditures (Only excluding the moving of the cement, sand and gravel which goes into the manufacturing of steam cured parcel chimney prefabricated body components to the construction depot, the loading, unloading and stacking costs regarding this transfer as well as the moving of the manufactured steam cured parcel chimney prefabricated body components within the construction site and the relevant loading, unloading as well as stacking costs associated with this transfer.) the price of the 500 dose steam cured parcel chimney prefabricated body component along with the chimney formation; per 1 piece:		

<b>Item No</b>	LSCP40		
<b>Description</b>	Steam Cured 500 Ds.Pref.Body Height Adjustment Component With Parcel Chimney Formation	<b>Unit:</b>	<b>MT</b>
<b>Title</b>			

<b>Specification</b>	Preparing the steam cured parcel chimney prefabricated body height adjustment components which have been purchased following all relevant tests being done prior to the approval of the consultancy so that they are ready for use near the excavation site, taking it from the side of the chimney excavation site and fitting it on top of the body component in accordance with the project thus including all expenses such as labor, machinery, equipment, tools, horizontal and vertical moving, loading, unloading, equipment and decrement costs as well as the contractor profit and general expenditures (Only excluding the moving of the cement, sand and gravel which goes into the manufacturing of steam cured parcel chimney prefabricated body height adjustment components to the construction depot, the loading, unloading and stacking costs regarding this transfer as well as the moving of the manufactured steam cured parcel chimney prefabricated body height adjustment components within the construction site and the relevant loading, unloading as well as stacking costs associated with this transfer.) the price of the 500 dose steam cured parcel chimney prefabricated body height adjustment component along with the chimney formation; per 1 meter:
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<b>Item No</b>	LSCP41		
<b>Description</b>	H=0.60m, 1.0mt Inner Diameterø.Steam Cured,Rubber Seal Jointed,500 Ds.Pref.Manhole Chamber Ring With Chimney Formation	<b>Unit:</b>	PCS
<b>Title</b>			
<b>Specification</b>	Preparing the 1.00-1.20 mt inner diameter, d=0.13 mt. thick steam cured prefabricated manhole chamber ring component which has been purchased following all relevant tests being done prior to the approval of the consultancy so that they are ready for use near the excavation site, taking it from the side of the chimney excavation site and lowering it to the foundation bed, to acquire the rubber seal joint in accordance with the TS 5434 and other relevant standards, binding the heads of the chamber rings so that there are no leaks (starting from top of the foundation bed) following the inspection and testing of the rubber seal joint, stacking them on top of each other, to undertake in accordance with the relevant standards the leak tightness process of the prefabricated components which have been positioned, thus including all expenses such as labor, machinery, equipment, tools, horizontal and vertical moving, loading, unloading, equipment and decrement costs as well as the contractor profit and general expenditures (Only excluding the moving of the cement, sand and gravel which goes into the manufacturing of steam cured prefabricated manhole chamber ring component to the construction depot, the loading, unloading and stacking costs regarding this transfer as well as the moving of the manufactured steam cured prefabricated manhole chamber ring component within the construction site and the relevant loading, unloading as well as stacking costs associated with this transfer.) the price of the 1.00-1.20 mt. inner diameter and d=0.13 mt. thick steam cured rubber seal jointed 500 dose prefabricated manhole chamber ring component with chimney formation is; per 1 piece:		

<b>Item No</b>	LSCP42		
<b>Description</b>	H=0.35m, 1.0mt Inner Diameterø.Steam Cured,Rubber Seal Jointed,500 Ds.Pref.Manhole Chamber Ring With Chimney Formation	<b>Unit:</b>	PCS
<b>Title</b>			
<b>Specification</b>	<p>Preparing the 1.00-1.20 mt inner diameter, d-0.13 mt. thick steam cured prefabricated manhole chamber ring component which has been purchased following all relevant tests being done prior to the approval of the consultancy so that they are ready for use near the excavation site, taking it from the side of the chimney excavation site and lowering it to the foundation bed, to acquire the rubber seal joint in accordance with the TS 5434 and other relevant standards, binding the heads of the chamber rings so that there are no leaks (starting from top of the foundation bed) following the inspection and testing of the rubber seal joint, stacking them on top of each other, to undertake in accordance with the relevant standards the leak tightness process of the prefabricated components which have been positioned, thus including all expenses such as labor, machinery, equipment, tools, horizontal and vertical moving, loading, unloading, equipment and decrement costs as well as the contractor profit and general expenditures (Only excluding the moving of the cement, sand and gravel which goes into the manufacturing of steam cured prefabricated manhole chamber ring component to the construction depot, the loading, unloading and stacking costs regarding this transfer as well as the moving of the manufactured steam cured prefabricated manhole chamber ring component within the construction site and the relevant loading, unloading as well as stacking costs associated with this transfer.) the price of the 1.00-1.20 mt. inner diameter and d=0.13 mt. thick steam cured rubber seal jointed 500 dose prefabricated manhole chamber ring component with chimney formation is;</p> <p>per 1 piece:</p>		

<b>Item No</b>	LSCP43		
<b>Description</b>	H=0.15-0.60 M,1.00m.Inner Diameterø.Steam Cured, Rubber Seal Jointed.Prefabricated Manhole Body Height Adjustment Ring, Chimney Formation	<b>Unit:</b>	MT
<b>Title</b>			
<b>Specification</b>	<p>Preparing the 1.00-1.20 mt inner diameter, d-0.13 mt. thick steam cured prefabricated manhole body height adjustment ring component which has been purchased following all relevant tests being done prior to the approval of the consultancy so that they are ready for use near the excavation site, taking it from the side of the chimney excavation site and lowering it to the foundation bed, to acquire the rubber seal joint in accordance with the TS 5434 and other relevant standards, following the inspection and testing of the rubber seal joint (starting from top of the foundation bed or chamber ring), getting the prefabricated body height adjustment ring component ready and leak-proof near the chimney excavation site, taking it from there and lowering it to the foundation bed, to acquire the rubber seal joint in accordance with the TS 5434 and other relevant standards, following the inspection and testing of the rubber seal joint, binding the heads of the prefabricated body height adjustment ring component with the rubber seal joint so that there are no leaks (starting from top of the foundation bed or chamber ring) and fitting them, to undertake in accordance with the relevant standards</p>		



	<p>the leak tightness process of the prefabricated components which have been positioned, thus including all expenses such as labor, machinery, equipment, tools, horizontal and vertical moving, loading, unloading, equipment and decrement costs as well as the contractor profit and general expenditures (Only excluding the moving of the cement, sand and gravel which goes into the manufacturing of steam cured prefabricated manhole body height adjustment ring component to the construction depot, the loading, unloading and stacking costs regarding this transfer as well as the moving of the manufactured steam cured prefabricated manhole body height adjustment ring component within the construction site and the relevant loading, unloading as well as stacking costs associated with this transfer.) the price of the 1.00-1.20 mt. inner diameter and d=0.13 mt. thick steam cured rubber seal jointed 500 dose steam cured prefabricated manhole body height adjustment ring component with chimney formation is;</p> <p>per 1 Meter:</p>
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<b>Item No</b>	LSCP44		
<b>Description</b>	1.00mt Inner Diameter Steam Cured, Rubber Seal Jointed, 500 Ds. Prefabricated Manhole Conical Component, Chimney Formation	<b>Unit:</b>	PCS
<b>Title</b>			
<b>Specification</b>	<p>Preparing the 1.00-1.20 mt inner diameter, d-0.13 mt. thick steam cured prefabricated manhole conical component which has been purchased following all relevant tests being done prior to the approval of the consultancy so that they are ready for use near the excavation site, taking it from the side of the chimney excavation site and lowering it to the foundation bed, to acquire the rubber seal joint in accordance with the TS 5434 and other relevant standards, following the inspection and testing of the rubber seal joint, binding the heads of the prefabricated conical component with the rubber seal joint so that there are no leaks and fitting them on top of the chamber ring, to undertake in accordance with the relevant standards the leak tightness process of the prefabricated components which have been positioned, thus including all expenses such as labor, machinery, equipment, tools, horizontal and vertical moving, loading, unloading, equipment and decrement costs as well as the contractor profit and general expenditures (Only excluding the moving of the cement, sand and gravel which goes into the manufacturing of steam cured prefabricated manhole conical component to the construction depot, the loading, unloading and stacking costs regarding this transfer as well as the moving of the manufactured steam cured prefabricated manhole conical component within the construction site and the relevant loading, unloading as well as stacking costs associated with this transfer.) the price of the 1.00-1.20 mt. inner diameter and d=0.13 mt. thick steam cured rubber seal jointed 500 dose steam cured prefabricated manhole conical component with chimney formation is;</p> <p>per 1 piece:</p>		

<b>Item No</b>	LSCP45	
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<b>Description</b>	Steam Cured, Rubber Seal Jointed, 500 Ds. Prefabricated Manhole Frame Moounting Component, Chimney Formation	<b>Unit:</b>	PCS
<b>Title</b>			
<b>Specification</b>	<p>Preparing the 0.62 mt inner diameter, d-0.13 mt. thick steam cured prefabricated manhole frame mounting component which has been purchased following all relevant tests being done prior to the approval of the consultancy so that they are ready for use near the excavation site, to acquire the rubber seal joint in accordance with the TS 5434 and other relevant standards, following the inspection and testing of the rubber seal joint, binding the heads of the prefabricated manhole frame components with the rubber seal joint so that there are no leaks and fitting them, to undertake in accordance with the relevant standards the leak tightness process of the prefabricated components which have been positioned (on top of the conical component or neck ring), thus including all expenses such as labor, machinery, equipment, tools, horizontal and vertical moving, loading, unloading, equipment and decrement costs as well as the contractor profit and general expenditures (Only excluding the moving of the cement, sand and gravel which goes into the manufacturing of steam cured prefabricated manhole frame mounting component to the construction depot, the loading, unloading and stacking costs regarding this transfer as well as the moving of the manufactured steam cured prefabricated manhole frame mounting component within the construction site and the relevant loading, unloading as well as stacking costs associated with this transfer.) the price of the 0.62 mt. inner diameter and d=0.13 mt. thick steam cured rubber seal jointed 500 dose steam cured prefabricated manhole frame mounting component with chimney formation is;</p> <p>per 1 piece:</p>		

<b>Item No</b>	LSCP46		
<b>Description</b>	Ø 150 Mm. 500 Ds.Steam Cured, Manhole Base Component, Chimney Formation (1 Input,1 Output)	<b>Unit:</b>	PCS
<b>Title</b>			
<b>Specification</b>	<p>Preparing the steam cured prefabricated manhole base component (0.88-1.00-1.40 mt. in height) which has been purchased following all relevant tests being done prior to the approval of the consultancy so that they are ready for use near the excavation site, taking it from the side of the chimney excavation site and leveling it, lowering it to the foundation bed of which the foundation has been stabilized and fitted in accordance with the project thus including all expenses such as labor, machinery, equipment, tools, horizontal and vertical moving, loading, unloading, equipment and decrement costs as well as the contractor profit and general expenditures (Only excluding the moving of the cement, sand and gravel which goes into the manufacturing of steam cured prefabricated manhole base component to the construction depot, the loading, unloading and stacking costs regarding this transfer as well as the moving of the manufactured steam cured prefabricated manhole base component within the construction site and the relevant loading, unloading as well as stacking costs associated with this transfer.) the price of the steam cured rubber seal jointed 500 dose steam cured prefabricated manhole base component with chimney formation is; per 1 piece:</p>		

<b>Item No</b>	LSCP47		
<b>Description</b>	Making Nodular Cast Iron Chimney Lids In Sewer System Consruction And Putting It Into Place	<b>Unit:</b>	PCS
<b>Title</b>			
<b>Specification</b>	The preparation through processing of nodular cast iron (hinged, 200 degree opening, with 3 locks, EPDM sealed, stainless steel nuts and screws) 88 kg in weight chimney lids which are resistant to heavy traffic loads (40 tons) according to its project as approved by the management, to be painted with a 2 coat bitumen rubber based paint, moved all the way to the work site, to be fitted on site thus including all of the costs, materials and decrements, tools and equipment expenses, contractor's profit and other general expenses, the price for the making of the nodular cast iron chimney lid and its fitting into place; per 1 Piece:		

<b>Item No</b>	LSCP48		
<b>Description</b>	Nodular Cast Iron Grate; For Construction Of Sewer System And Rainwater	<b>Unit:</b>	KG
<b>Title</b>			
<b>Specification</b>	The preparation through processing of nodular cast iron (spheroidal graphite cast iron) rainwater grates or the purchase of rainwater grates produced in line with these rules, moved all the way to the work site, to be painted with a 2 coat bitumen rubber based paint, to be fitted on site thus including all of the costs, materials and decrements, labor, tools and equipment expenses, contractor's profit and other general expenses, the price for the making of nodular cast iron grates and their fitting into place; per 1 kg.		

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Necessary revisions and/or additions have been made in the Volume 4 of the Tender Dossier (TD), which are explained below.

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#### **Volume 4 - Bill of Quantaties of Bitlis, Erciş and Muş Ateliers**

#### **Point 1: BOQ for Bitlis, Erciş and Muş Ateliers – Civil-Architectural Works: Civil-Architectural Works of Atelier and Administrative Building**

**Instead of;**

...	...	...	...	...
63	ARC63	SMOKE DRAIN CHIMNEY	PCS	10

**Read;**

...	...	...	...	...
63	ARC63	SMOKE DRAIN VENT	PCS	10
64	ARC63-2	Q 90 mm GALVANIZED EXTRUDED STEEL DOWNSPOUT	MT	120

**Point 2: BOQ for Bitlis, Ercis and Muş Ateliers– Landscape Works: Infrastructural Works of Site**

**Instead of;**

...	...	...	...	...
18	LSCP36	Exterior diameter Ø 110 mm, glass-fiber reinforced pre-insulated pipe, bearer PPR-C pipe mention size Ø 40	m	76

**Read;**

No	Dwg. No	Definition	Unit	Amount
...	...	...	...	...
18	LSCP36	Exterior diameter Ø 110 mm, glass-fiber reinforced pre-insulated pipe, bearer PPR-C pipe mention size Ø 40	m	76
19	LSCP 37	Steam cured 500 ds. pref. base component. parcel chimney formation (h=0.60 mt., rubber seal joint)	PCS	21
20	LSCP 38	Steam cured 500 ds. pref. body component. parcel chimney formation (h=0.50 mt., 600 ds. mortar joint)	PCS	21
21	LSCP 39	Steam cured 500 ds. pref. body component. parcel chimney formation (h=0.25 mt., 600 ds. mortar joint)	PCS	9
22	LSCP 40	Steam cured 500 ds. pref. body height adjustment component with parcel chimney formation	Mt	1
23	LSCP 41	h=0.60m, 1.0mt inner diameterø.steam cured,rubber seal jointed,500 ds.pref.manhole chamber ring with chimney formation	PCS	9
24	LSCP 42	h=0.35m, 1.0mt inner diameterø.steam cured,rubber seal jointed,500 ds.pref.manhole chamber ring with chimney formation	PCS	9
25	LSCP 43	h=0.15-0.60 m,1.00m.inner diameterø.steam cured, rubber seal jointed.prefabricated manhole body height adjustment ring, chimney formation	Mt	1
26	LSCP 44	1.00mt inner diameter steam cured, rubber seal jointed, 500 ds. prefabricated manhole conical component, chimney formation	PCS	21
27	LSCP 45	Steam cured, rubber seal jointed, 500 ds. prefabricated manhole frame mounting component, chimney formation	PCS	21

28	LSCP 46	ø 150 mm. 500 ds. steam cured, manhole base component, chimney formation (1 input, 1 output)	PCS	21
29	LSCP 47	Making nodular cast iron chimney lids in sewer system construction and putting it into place	PCS	9
30	LSCP 48	Nodular cast iron grate; for construction of sewer system and rainwater	KG	480

## **Volume 5 – 01 Architectural Drawings of Bitlis, Erciş and Muş Ateliers**

### **Point 1: Drawing Lists for Bitlis, Erciş and Muş Ateliers**

#### **Instead of;**

...

		<b><u>For Bitlis Atelier;</u></b> ... <b><u>01-A-02-10.pdf</u></b> ...  <b><u>For Erciş Atelier;</u></b> ... <b><u>02-A-02-10.pdf</u></b> ...  <b><u>For Muş Atelier;</u></b> ... <b><u>03-A-02-10.pdf</u></b> ...		
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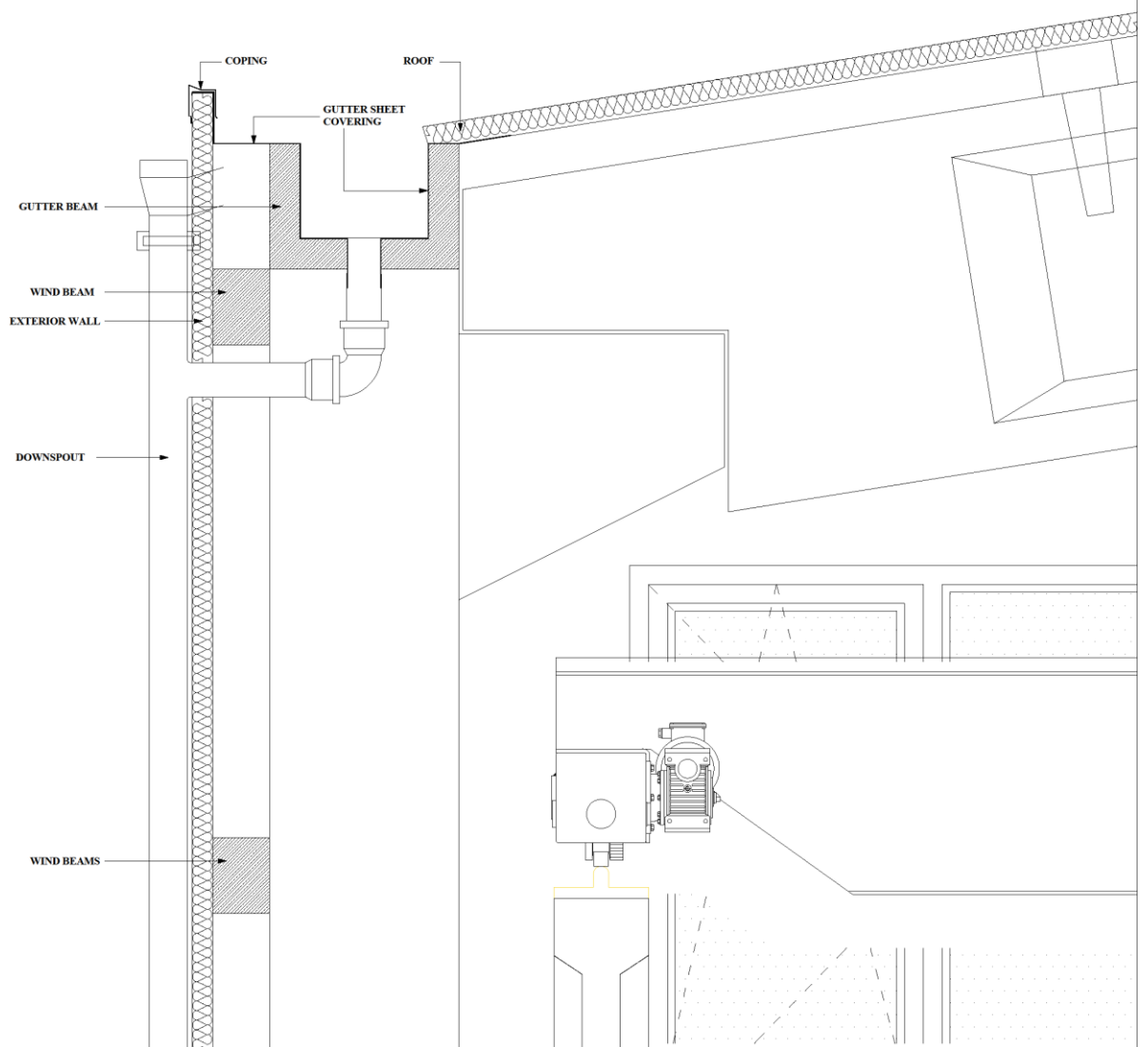
#### **Read;**

...

		<b><u>For Bitlis Atelier;</u></b> ... <b><u>01-A-02-10.pdf</u></b> <b><u>01-A-02-11.Pdf</u></b> ...  <b><u>For Erciş Atelier;</u></b> ... <b><u>02-A-02-10.pdf</u></b>		
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		<u>02-A-02-11.Pdf</u> ...  <u>For Muş Atelier;</u> ... <u>03-A-02-10.pdf</u> <u>03-A-02-11.Pdf</u> ...		
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The typical drawing of 01-A-02-11.Pdf, 02-A-02-11.Pdf, 03-A-02-11.Pdf is indicated below:



Gutter and Facade Panel Combination.pdf

Please double click on PDF image to open up the document.