The detail structure of the undulator beamline can be summarized in the following:

### **Initial Drift:**

Drift (0.26499 m)

#### **US01**:

```
Drift (0.12871 m) ---- Undulator (3.3 m) ---- Drift (0.10389 m) ---- Quad (0.039m) ---- Orbit Corrector (Infinite short) ---- Quad (0.039m) ---- Drift (0.2249 m)
```

## **US02:**

```
Drift (0.12871 m) ---- Undulator (3.3 m) ---- Drift (0.10389 m) ---- Quad (0.039m) ---- Orbit Corrector (Infinite short) ---- Quad (0.039m) ---- Drift (0.2249 m)
```

### **US03:**

```
Drift (0.12871 m) ---- Undulator (3.3 m) ---- Drift (0.10389 m) ---- Quad (0.039m) ---- Orbit Corrector (Infinite short) ---- Quad (0.039m) ---- Drift (0.65305 m)
```

#### **US04**:

```
Drift (0.12871 m) ---- Undulator (3.3 m) ---- Drift (0.10389 m) ---- Quad (0.039m) ---- Orbit Corrector (Infinite short) ---- Quad (0.039m) ---- Drift (0.2249 m)
```

### **US05:**

```
Drift (0.12871 m) ---- Undulator (3.3 m) ---- Drift (0.10389 m) ---- Quad (0.039m) ---- Orbit Corrector (Infinite short) ---- Quad (0.039m) ---- Drift (0.2249 m)
```

#### **US06:**

```
Drift (0.12871 m) ---- Undulator (3.3 m) ---- Drift (0.10389 m) ---- Quad (0.039m) ---- Orbit Corrector (Infinite short) ---- Quad (0.039m) ---- Drift (0.65305 m)
```

#### **US07**:

```
Drift (0.12871 m) ---- Undulator (3.3 m) ---- Drift (0.10389 m) ---- Quad (0.039m) ---- Orbit Corrector (Infinite short) ---- Quad (0.039m) ---- Drift (0.2249 m)
```

### **US08:**

```
Drift (0.12871 m) ---- Undulator (3.3 m) ---- Drift (0.10389 m) ---- Quad (0.039m) ---- Orbit Corrector (Infinite short) ---- Quad (0.039m) ---- Drift (0.2249 m)
```

### The first Chicane:

Drift (0.093709 m) + 1<sup>st</sup> Chicane (3.4 m) + Drift (0.069089 m) + Quad (0.039m) + Orbit Corrector (Infinite short) + Quad (0.039m) + Drift (0.6574 m)

#### **US10:**

Drift (0.12871 m) ---- Undulator (3.3 m) ---- Drift (0.10389 m) ---- Quad (0.039m) ---- Orbit Corrector (Infinite short) ---- Quad (0.039m) ---- Drift (0.2249 m)

### **US11**:

Drift (0.12871 m) ---- Undulator (3.3 m) ---- Drift (0.10389 m) ---- Quad (0.039m) ---- Orbit Corrector (Infinite short) ---- Quad (0.039m) ---- Drift (0.2249 m)

#### **US12**:

Drift (0.12871 m) ---- Undulator (3.3 m) ---- Drift (0.10389 m) ---- Quad (0.039m) ---- Orbit Corrector (Infinite short) ---- Quad (0.039m) ---- Drift (0.65305 m)

### **US13:**

Drift (0.12871 m) ---- Undulator (3.3 m) ---- Drift (0.10389 m) ---- Quad (0.039m) ---- Orbit Corrector (Infinite short) ---- Quad (0.039m) ---- Drift (0.2249 m)

### **US14**:

Drift (0.12871 m) ---- Undulator (3.3 m) ---- Drift (0.10389 m) ---- Quad (0.039m) ---- Orbit Corrector (Infinite short) ---- Quad (0.039m) ---- Drift (0.2249 m)

#### **US15**:

Drift (0.12871 m) ---- Undulator (3.3 m) ---- Drift (0.10389 m) ---- Quad (0.039m) ---- Orbit Corrector (Infinite short) ---- Quad (0.039m) ---- Drift (0.65305 m)

#### The second chicane:

Drift (0.09371 m) + 2<sup>nd</sup> Chicane (3.4 m)+ Drift (0.06889 m) + Quad (0.039m) + Orbit Corrector (Infinite short) + Quad (0.039m) + Drift (0.2294 m)

#### **US17:**

Drift (0.12871 m) ---- Undulator (3.3 m) ---- Drift (0.10389 m) ---- Quad (0.039m) ---- Orbit Corrector (Infinite short) ---- Quad (0.039m) ---- Drift (0.2249 m)

### **US18:**

Drift (0.12871 m) ---- Undulator (3.3 m) ---- Drift (0.10389 m) ---- Quad (0.039m) ---- Orbit Corrector (Infinite short) ---- Quad (0.039m) ---- Drift (0.65305 m)

# **US19**:

Drift (0.12871 m) ---- Undulator (3.3 m) ---- Drift (0.10389 m) ---- Quad (0.039m) ---- Orbit Corrector (Infinite short) ---- Quad (0.039m) ---- Drift (0.2249 m)

### **US20:**

Drift (0.12871 m) ---- Undulator (3.3 m) ---- Drift (0.10389 m) ---- Quad (0.039m) ---- Orbit Corrector (Infinite short) ---- Quad (0.039m) ---- Drift (0.2249 m)

#### **US21**:

Drift (0.12871 m) ---- Undulator (3.3 m) ---- Drift (0.10389 m) ---- Quad (0.039m) ---- Orbit Corrector (Infinite short) ---- Quad (0.039m) ---- Drift (0.65305 m)

### **US22:**

Drift (0.12871 m) ---- Undulator (3.3 m) ---- Drift (0.10389 m) ---- Quad (0.039m) ---- Orbit Corrector (Infinite short) ---- Quad (0.039m) ---- Drift (0.2249 m)

#### **US23:**

Drift (0.12871 m) ---- Undulator (3.3 m) ---- Drift (0.10389 m) ---- Quad (0.039m) ---- Orbit Corrector (Infinite short) ---- Quad (0.039m) ---- Drift (0.2249 m)

#### **US24**:

Drift (0.12871 m) ---- Undulator (3.3 m) ---- Drift (0.10389 m) ---- Quad (0.039m) ---- Orbit Corrector (Infinite short) ---- Quad (0.039m) ---- Drift (0.65305 m)