苏州市工程造价管理处

苏工价〔2023〕2号

关于印发《智能建造（建筑机器人）补充定额》（试行）的通知

各建设、设计、施工、中介咨询机构，市各有关单位：

为贯彻落实市政府《关于加快推进智能建造的实施方案》，推进我市智能建造的发展，满足建筑机器人施工的计价需要，我处组织编制了《智能建造（建筑机器人）补充定额》（试行），现印发给你们，并将有关事项通知如下:

一、本补充定额作为我市现行建设工程计价依据的补充，与《江苏省建筑与装饰工程计价定额》（2014版）配套使用。适用于本市行政区域内采用整平机器人、抹平机器人、喷涂机器人和ALC墙板安装机器人为代表的建筑机器人施工的工程。

二、本补充定额机器人台班单价按租赁考虑，已包含运输费、电费和操作员人工费。我处将根据建筑机器人租赁市场价格变化，适时发布其租赁台班单价。

三、本补充定额由苏州市工程造价管理处负责管理、解释,在执行过程中遇到的问题和意见，请及时反馈。

　　                          苏州市工程造价管理处

     　　　　                    2023年3月15日

抄报：省建设工程造价管理总站，市住房和城乡建设局。

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 现浇满堂基础，机器人整平、抹平 | | | | | | | | |
|  | | | | | | | | |
| 工作内容：购入预拌混凝土、泵送、浇捣、振捣整平、抹平、养护。 计量单位：m³ | | | | | | | | |
| **定　额　编　号** | | | | | **苏补6-1** | | **苏补6-2** | |
| 项　　　　目 | | | | | 泵送混凝土满堂（板式）基础， 机器人整平、抹平 | | | |
| 无梁式 | | 有梁式 | |
| 综 合 单 价 | | | | | 407.87 | | 412.04 | |
| 其 | 人　 工　 费 | | | | 17.32 | | 20.20 | |
| 材　 料　 费 | | | | 356.14 | | 355.17 | |
| 中 | 机　 械　 费 | | | | 20.44 | | 21.31 | |
| 管 理 费 | | | | 9.44 | | 10.38 | |
| 利 润 | | | | 4.53 | | 4.98 | |
| 类别 | 编码 | 名称 | 单位 | 单价 | 数量 | 合价 | 数量 | 合价 |
| 二类工 | | | 工日 | 82.00 | 0.2112 | 17.32 | 0.2464 | 20.20 |
| 材 料 | 80212103 | 预拌混凝土(泵送型)C20 | m³ | 342.00 | 1.02 | 348.84 | 1.02 | 348.84 |
| 02090101 | 塑料薄膜 | ㎡ | 0.80 | 1.87 | 1.50 | 1.38 | 1.10 |
| 31150101 | 水 | m³ | 4.70 | 1.18 | 5.55 | 1.06 | 4.98 |
|  | 泵管摊销费 | 元 | 1.00 | 0.25 | 0.25 | 0.25 | 0.25 |
| 机 械 | 99052107 | 混凝土振捣器 插入式 | 台班 | 11.87 | 0.069 | 0.82 | 0.069 | 0.82 |
| 99051304 | 混凝土输送泵车 输送量60m3/h | 台班 | 1767.77 | 0.007 | 12.37 | 0.007 | 12.37 |
| sbjx0001 | 整平机器人 | 台班 | 1104.41 | 0.0028 | 3.09 | 0.0031 | 3.42 |
| sbjx0002 | 抹平机器人 | 台班 | 1093.94 | 0.0038 | 4.16 | 0.0043 | 4.70 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 现浇板，机器人整平、抹平 | | | | | | | | |
|  |  |  |  |  |  |  |  |  |
| 工作内容：购入预拌混凝土、泵送、浇捣、振捣整平、抹平、养护。 | | | | | | | 计量单位：m3 | |
| **定　额　编　号** | | | | | **苏补6-3** | | **苏补6-4** | |
| 项　　　　目 | | | | | 泵送混凝土，机器人整平、抹平 | | | |
| 有梁板 | | 无梁板 | |
| 综 合 单 价 | | | | | 480.68 | | 465.69 | |
| 其 | 人　 工　 费 | | | | 31.39 | | 29.25 | |
| 材　 料　 费 | | | | 383.05 | | 376.54 | |
| 中 | 机　 械　 费 | | | | 39.87 | | 35.82 | |
| 管 理 费 | | | | 17.82 | | 16.27 | |
| 利 润 | | | | 8.55 | | 7.81 | |
| 类别 | 编码 | 名称 | 单位 | 单价 | 数量 | 合价 | 数量 | 合价 |
| 二类工 | | | 工日 | 82.00 | 0.3828 | 31.39 | 0.3567 | 29.25 |
| 材 料 | 80212105 | 预拌混凝土（泵送型）C30 | m³ | 362.00 | 1.02 | 369.24 | 1.02 | 369.24 |
| 02090101 | 塑料薄膜 | ㎡ | 0.80 | 5.03 | 4.02 | 1.82 | 1.46 |
| 31150101 | 水 | m³ | 4.70 | 2.03 | 9.54 | 1.19 | 5.59 |
|  | 泵管摊销费 | 元 | 1.00 | 0.25 | 0.25 | 0.25 | 0.25 |
| 机 械 | 99051304 | 混凝土输送泵车 输送量60m³/h | 台班 | 1767.77 | 0.011 | 19.45 | 0.011 | 19.45 |
| sbjx0001 | 整平机器人 | 台班 | 1104.41 | 0.0078 | 8.61 | 0.0063 | 6.96 |
| sbjx0002 | 抹平机器人 | 台班 | 1093.94 | 0.0108 | 11.81 | 0.0086 | 9.41 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 地面混凝土垫层，机器人整平、抹平 | | | | | | | | |
|  |  |  |  |  |  |  |  |  |
| 工作内容：混凝土浇捣、振捣整平、抹平、养护。 计量单位：m3 | | | | | | | | |
| **定　额　编　号** | | | | | **苏补13-1** | | **苏补13-2** | |
| 项　　　　目 | | | | | 非泵送混凝土地面垫层，机器人整平、抹平 | | | |
| 不分格 | | 分格 | |
| 综 合 单 价 | | | | | 439.12 | | 461.68 | |
| 其中 | 人　 工　 费 | | | | 46.29 | | 53.67 | |
| 材　 料　 费 | | | | 331.00 | | 343.44 | |
| 机　 械　 费 | | | | 32.63 | | 32.63 | |
| 管 理 费 | | | | 19.73 | | 21.58 | |
| 利 润 | | | | 9.47 | | 10.36 | |
| 类别 | 编码 | 名称 | 单位 | 单价 | 数量 | 合价 | 数量 | 合价 |
| 二类工 | | | 工日 | 82.00 | 0.5645 | 46.29 | 0.6545 | 53.67 |
| 材 料 | 80212114 | 预拌混凝土（非泵送型）C15 | m3 | 323.00 | 1.015 | 327.85 | 1.015 | 327.85 |
| 31150101 | 水 | m3 | 4.70 | 0.67 | 3.15 | 0.67 | 3.15 |
| 32090101 | 周转木材 | m3 | 1850 |  |  | 0.006 | 11.10 |
| 03510705 | 铁钉70mm | kg | 4.2 |  |  | 0.32 | 1.34 |
| 机 械 | sbjx0001 | 整平机器人 | 台班 | 1104.41 | 0.0125 | 13.81 | 0.0125 | 13.81 |
| sbjx0002 | 抹平机器人 | 台班 | 1093.94 | 0.0172 | 18.82 | 0.0172 | 18.82 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 细石混凝土找平层，机器人整平、抹平 | | | | | | | | |
|  |  |  |  |  |  |  |  |  |
| 工作内容：清理基层、混凝土浇捣、振捣整平、抹平、养护。 计量单位：10㎡ | | | | | | | | |
| **定　额　编　号** | | | | | **苏补13-3** | | **苏补13-4** | |
| 项　　　　目 | | | | | 非泵送细石混凝土找平层，机器人整平、抹平 | | | |
| 厚40mm | | 厚度每增（减）5mm | |
| 综 合 单 价 | | | | | 214.28 | | 22.67 | |
| 其中 | 人　 工　 费 | | | | 28.70 | | 2.95 | |
| 材　 料　 费 | | | | 136.41 | | 17.12 | |
| 机　 械　 费 | | | | 28.14 | | 1.10 | |
| 管 理 费 | | | | 14.21 | | 1.01 | |
| 利 润 | | | | 6.82 | | 0.49 | |
| 类别 | 编码 | 名称 | 单位 | 单价 | 数量 | 合价 | 数量 | 合价 |
| 二类工 | | | 工日 | 82.00 | 0.350 | 28.70 | 0.036 | 2.95 |
| 材 料 | 80212115 | 预拌混凝土(非泵送型)C20 | m3 | 333.00 | 0.404 | 134.53 | 0.051 | 16.98 |
| 31150101 | 水 | m3 | 4.70 | 0.4 | 1.88 | 0.03 | 0.14 |
| 机 械 | sbjx0001 | 整平机器人 | 台班 | 1104.41 | 0.0125 | 13.81 | 0.0010 | 1.10 |
| sbjx0002 | 抹平机器人 | 台班 | 1093.94 | 0.0131 | 14.33 |  |  |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 蒸压轻质加气砼隔墙板(ALC板)安装 | | | | | | | | | | | | 工作内容：构件就位堆放、切割、安装校正、固定、修整、水泥砂浆座浆、勾缝、打胶、板面清扫。 | | | | | | | | | | | | 计量单位：10㎡ | | | | | | | | | | | | **定　额　编　号** | | | | | | **苏补8-1** | | **苏补8-2** | | **苏补8-3** | | | | 项　　　　目 | | | | | | 蒸压轻质加气砼隔墙板(ALC板)安装， 机器人立起、辅助安装 | | | | | | | | | 100厚 | | 150厚 | | 200厚 | | | | 综 合 单 价 | | | | | | 1674.68 | | 2075.51 | | 2452.24 | | | | 其 | | 人　 工　 费 | | | | 355.47 | | 384.17 | | 392.37 | | | | 材　 料　 费 | | | | 1013.05 | | 1374.56 | | 1740.06 | | | | 中 | | 机　 械　 费 | | | | 127.47 | | 127.47 | | 127.47 | | | | 管 理 费 | | | | 120.74 | | 127.91 | | 129.96 | | | | 利 润 | | | | 57.95 | | 61.40 | | 62.38 | | | | 类别 | | 编码 | 名称 | 单位 | 单价 | 数量 | 合价 | 数量 | 合价 | 数量 | 合价 | | | 二类工 | | | | 工日 | 82.00 | 4.335 | 355.47 | 4.685 | 384.17 | 4.785 | 392.37 | | | 材 料 | | sbcl0001 | ALC墙板100mm | m2 | 87.00 | 10.15 | 883.05 |  |  |  |  | | | sbcl0002 | ALC墙板150mm | m2 | 121.42 |  |  | 10.15 | 1232.41 |  |  | | | sbcl0003 | ALC墙板200mm | m2 | 155.83 |  |  |  |  | 10.15 | 1581.67 | | | 09493564 | 镀锌连接铁件 | t | 6440.00 | 0.004 | 25.76 | 0.004 | 25.76 | 0.004 | 25.76 | | | 09493565 | 镀锌U型卡 | 个 | 7.00 | 4.80 | 33.60 | 4.80 | 33.60 | 4.80 | 33.60 | | | 09493566 | 镀锌管卡 | 个 | 3.10 | 12.00 | 37.20 | 12.00 | 37.20 | 12.00 | 37.20 | | | 01010100 | 钢筋综合 | t | 4020.00 | 0.002 | 8.04 | 0.002 | 8.04 | 0.003 | 12.06 | | | 80010125 | 水泥砂浆 1:3 | m3 | 239.65 | 0.031 | 7.43 | 0.046 | 11.02 | 0.061 | 14.62 | | | 12410505 | ALC板专用勾缝剂 | kg | 1.18 | 6.50 | 7.67 | 6.50 | 7.67 | 6.50 | 7.67 | | | 80090317 | ALC板专用修补砂浆 | kg | 4.00 | 0.50 | 2.00 | 0.75 | 3.00 | 1.00 | 4.00 | | | 03652403 | 合金钢切割锯片 | 片 | 80.00 | 0.05 | 4.00 | 0.08 | 6.40 | 0.10 | 8.00 | | | 31130106 | 其他材料费 | 元 | 0.86 | 5.00 | 4.30 | 11.00 | 9.46 | 18.00 | 15.48 | | | 机 械 | | sbjx0003 | 墙板安装机器人 | 台班 | 796.19 | 0.1587 | 126.36 | 0.1587 | 126.36 | 0.1587 | 126.36 | | | 99230127 | 石料切割机 | 台班 | 14.69 | 0.001 | 0.01 | 0.001 | 0.01 | 0.001 | 0.01 | | | 99050503 | 灰浆搅拌机 拌筒容量200L | 台班 | 122.64 | 0.009 | 1.10 | 0.009 | 1.10 | 0.009 | 1.10 | |   机器人喷涂腻子 | | | | | | | | |
|  |  |  |  |  |  |  |  |  |
| 工作内容：清扫、满喷腻子、打磨。 计量单位：10㎡ | | | | | | | | |
| **定　额　编　号** | | | | | **苏补17-1** | | **苏补17-2** | |
| 项　　　　目 | | | | | 内墙面满喷成品腻子二遍，机器人喷涂 | | | |
| 抹灰面 | | 砼面 | |
| 综 合 单 价 | | | | | 197.29 | | 236.82 | |
| 其 | 人　 工　 费 | | | | 14.96 | | 41.65 | |
| 材　 料　 费 | | | | 63.27 | | 66.24 | |
| 机　 械　 费 | | | | 82.86 | | 82.86 | |
| 中 | 管 理 费 | | | | 24.46 | | 31.13 | |
| 利 润 | | | | 11.74 | | 14.94 | |
| 类别 | 编码 | 名称 | 单位 | 单价 | 数量 | 合价 | 数量 | 合价 |
| 一类工 | | | 工日 | 85.00 | 0.176 | 14.96 | 0.490 | 41.65 |
| 材 料 | 03270205 | 水砂纸 | 张 | 0.70 | 0.132 | 0.09 | 0.132 | 0.09 |
| 11450342 | 成品腻子粉 | kg | 3.00 | 19.845 | 59.54 | 20.837 | 62.51 |
| 31150101 | 水 | kg | 4.70 | 0.009 | 0.04 | 0.009 | 0.04 |
| 31130106 | 其他材料费 | 元 | 1.00 | 3.600 | 3.60 | 3.600 | 3.60 |
| 机 械 | sbjx0004 | 腻子喷涂机器人 | 台班 | 1308.95 | 0.0333 | 43.59 | 0.0333 | 43.59 |
| sbjx0005 | 打磨机器人 | 台班 | 1308.95 | 0.0300 | 39.27 | 0.0300 | 39.27 |
| 注：本定额适用于机器人在内墙面喷腻子，柱、梁、天棚面上喷腻子，人工、机械乘以系数1.10。 | | | | | | | | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 机器人喷涂乳胶漆 | | | | | | | | |
|  |  |  |  |  |  |  |  |  |
| 工作内容：清扫、配浆、喷乳胶漆。 计量单位：10㎡ | | | | | | | | |
| **定　额　编　号** | | | | | **苏补17-3** | | **苏补17-4** | |
| 项目 | | | | | 内墙面乳胶漆二遍， 机器人喷涂 | | 内墙面乳胶漆每增减一遍，机器人喷涂 | |
| 综 合 单 价 | | | | | 86.33 | | 43.26 | |
| 其 | 人　 工　 费 | | | | 7.57 | | 3.83 | |
| 材　 料　 费 | | | | 35.26 | | 17.57 | |
| 机　 械　 费 | | | | 29.71 | | 14.92 | |
| 中 | 管 理 费 | | | | 9.32 | | 4.69 | |
| 利 润 | | | | 4.47 | | 2.25 | |
| 类别 | 编码 | 名称 | 单位 | 单价 | 数量 | 合价 | 数量 | 合价 |
| 一类工 | | | 工日 | 85.00 | 0.089 | 7.57 | 0.045 | 3.83 |
| 材 料 | 11010304 | 内墙乳胶漆 | kg | 12.00 | 2.884 | 34.61 | 1.442 | 17.30 |
| 03270202 | 砂纸 | 张 | 1.10 | 0.400 | 0.44 | 0.200 | 0.22 |
| 31130106 | 其他材料费 | 元 | 1.00 | 0.212 | 0.21 | 0.050 | 0.05 |
| 机 械 | sbjx0006 | 涂料喷涂机器人 | 台班 | 1308.95 | 0.0227 | 29.71 | 0.0114 | 14.92 |
|  |  |  |  |  |  |  |  |
| 注：本定额适用于机器人在内墙面喷乳胶漆，柱、梁、天棚面上喷乳胶漆，人工、机械乘以系数1.10。 | | | | | | | | |