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山西省工程建设标准设计

12系列建筑标准设计图集

DBJT04-35-2012

12J9-1 室外工程

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室外工程

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编 制 说 明

1. 适用范围

本图集适用于一般新建、改建、扩建的民用及工业建筑.

2. 编制依据

《民用建筑设计通则》 GB50352-2005

《城市居住区规划设计规范》 GB50180-93(2002年版)

全国民用建筑工程设计技术措施2009《规划 建筑 景观》

《建筑地基基础设计规范》 GB50007-2011

《砌体结构设计规范》 GB50003-2011

《建筑钢结构焊接规程》 JGJ81-2002

3. 编制内容

包括围墙及相关内容、大门及相关内容、散水、明沟、坡道、台阶、花池、挡土墙、窗井、道路等选用图及相关文字说明.

4. 编制条件及选用说明

4.1 本图集尺寸标注以mm为单位，未注明的尺寸按工程设计确定.

4.2 本图集索引方法:

图集号——12J9-1 x/xx —— x 详图编号；xx 详图所在页次

4.3 在本图集使用中，本图集所依据的规范、标准若有新的版本时，使用者应按有关做法进行检查、调整，以使所选做法符合相关规范有效版本的要求.

5. 材料

5.1 砌体

5.1.1 砌体在选用时应根据国家有关要求及地方法规的要求选用不破坏耕地、环保的产品.

5.1.2 砌体可选用混凝土砌块，各类烧结空心、实心砌块，各类蒸压空心、实心砌块,砌块强度等级不应低于MU10.

5.2 钢筋混凝土构件:混凝土强度等级为C20,钢筋采用HPB300.

5.3 木材含水率不大于15%.

5.4 金属件: 圆钢、方钢、钢管、型钢、钢板采用Q235-A.F钢，钢筋采用Ⅰ级钢，不锈钢材应符合国家相关标准，钢和不锈钢之间的焊接采用不锈钢焊条.

6. 技术要求

6.1 图注中基础埋深H＞冰冻线深度.

6.2 室外地坪以下采用不低于M10的水泥砂浆砌筑，砌块孔洞用混凝土灌实至地上200; 室外地坪以上的砌体一般采用混合砂浆砌筑，砂浆强度等级不得低于M5.

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编 制 说 明

6.3 预埋件：凡埋入墙体木砖均进行防腐处理，预埋铁件均进行防锈处理，凡外露铁件均应除锈，刷防锈漆两道，调和漆两道，颜色由设计人定。

6.4 围墙伸缩缝间距宜为3倍围墙高度，宜不应大于15m。

6.5 围墙外装饰材料，油漆品种及颜色均由具体设计确定。本图采用的铸铁花饰及墙灯均为示意，具体大小，式样及电气线路敷设，灯具的安装均由具体设计人员确定。

6.6 金属件焊接及焊接材料应符合《建筑钢结构焊接规程》JGJ81的有关技术规定。焊接应满焊并保持焊缝均匀，不得有裂缝、过烧现象，外露处应挫平、磨光。焊条应选用E43系列，焊缝高度6mm。

6.7 各金属构件表面应光滑、平直、无毛刺。安装后不应有歪斜、扭曲、变形等缺陷。

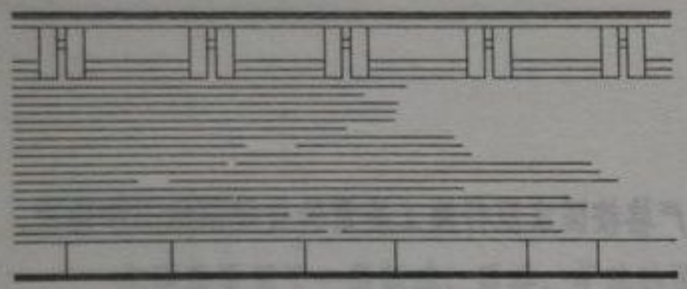
6.8 各种机加工件，要求尺寸精确，表面光洁。

6.9 本图集围墙部分的基础有独立式及条形两种做法，如选用独立式基础时设计人应注明，基础深度根据各地冻深由设计人定。

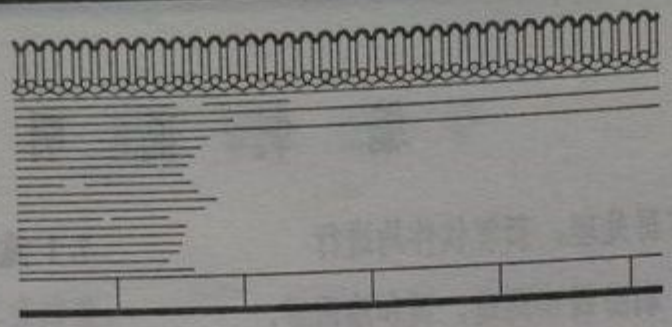
6.10 本图集所注防潮层做法为20mm厚1：2水泥砂浆，内掺5%防水粉。

7. 施工、验收及检验

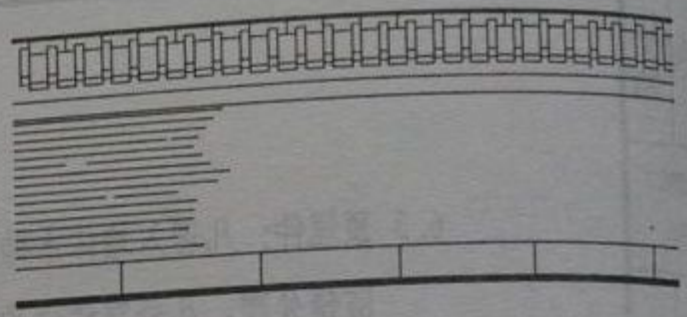
7.1 施工中应严格按国家现行施工质量验收规范施工和验收。



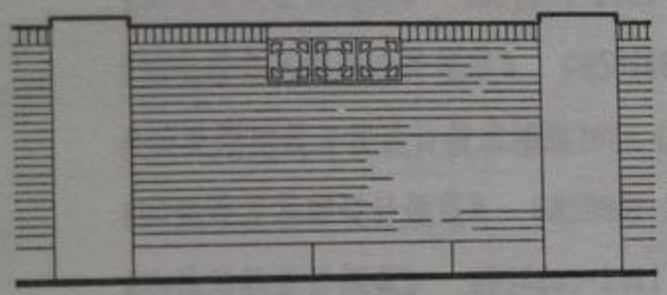
砖围墙 ①



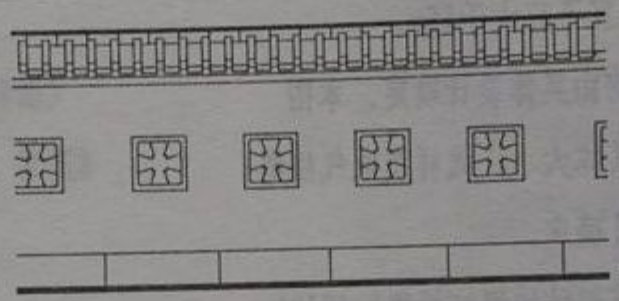
砖围墙 ②



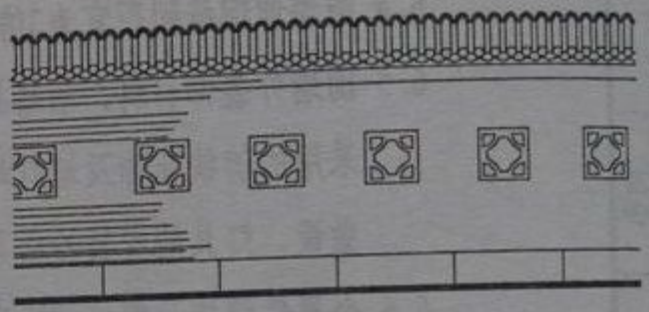
砖围墙 ③



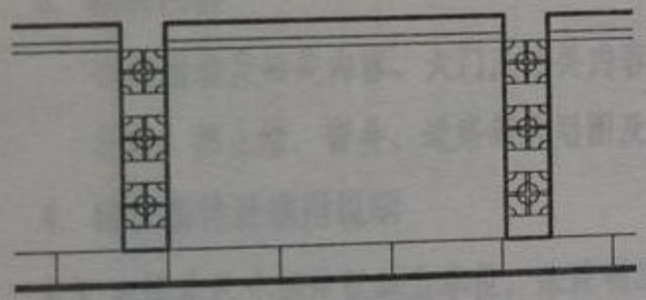
砖围墙 ④



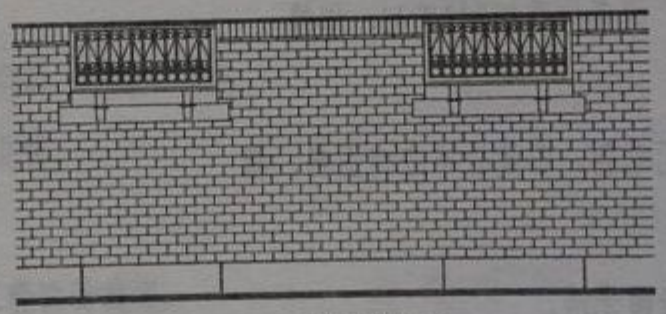
砖围墙 ⑤



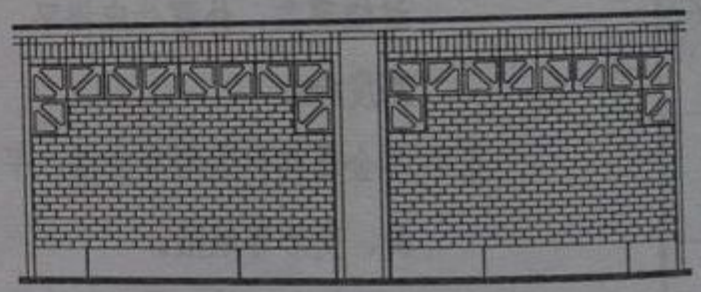
砖围墙 ⑥



砖围墙 ⑦



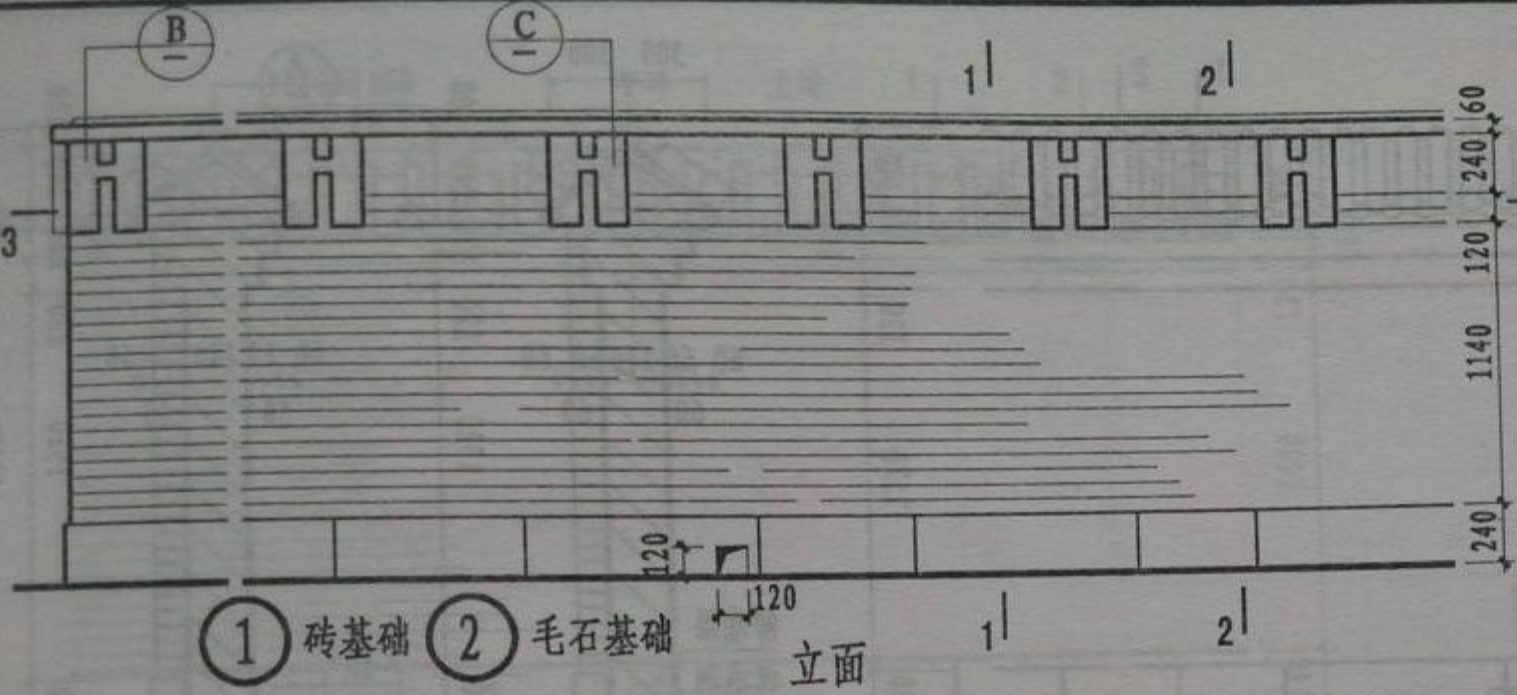
砖围墙 ⑧



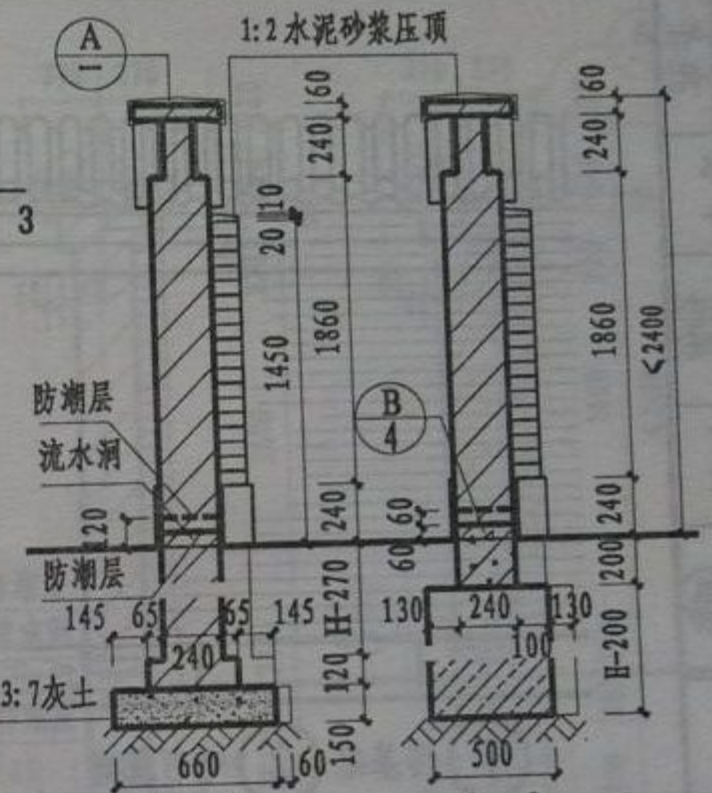
砖围墙 ⑨

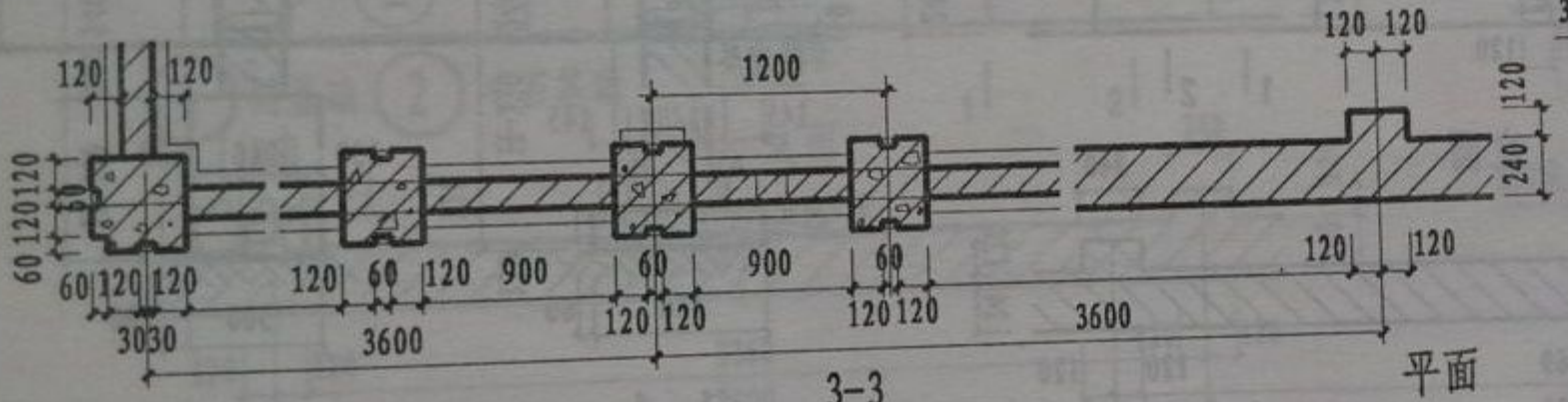
注：
1. 围墙材料可为非粘土实心砖、空心砖，围墙高度＜2400，饰面做法由设计人定。
2. 围墙伸缩缝间距及位置按工程设计，伸缩缝做法见第3页。
3. 流水洞均为每开间留一个，洞内壁抹20厚1:2水泥砂浆掺5%防水粉。
4. 防潮层在流水洞处闭合，防潮层做法为20厚1:2水泥砂浆掺5%防水粉。
5. 图中基础埋深H＞冰冻线深度。
6. 围墙勒脚饰面材料由设计人定。
7. 露明铁件刷防锈漆二道，调和漆二道，颜色由设计人定。
8. 图中两个剖面基础部分不同，分别表示围墙的两种基础做法供选择。

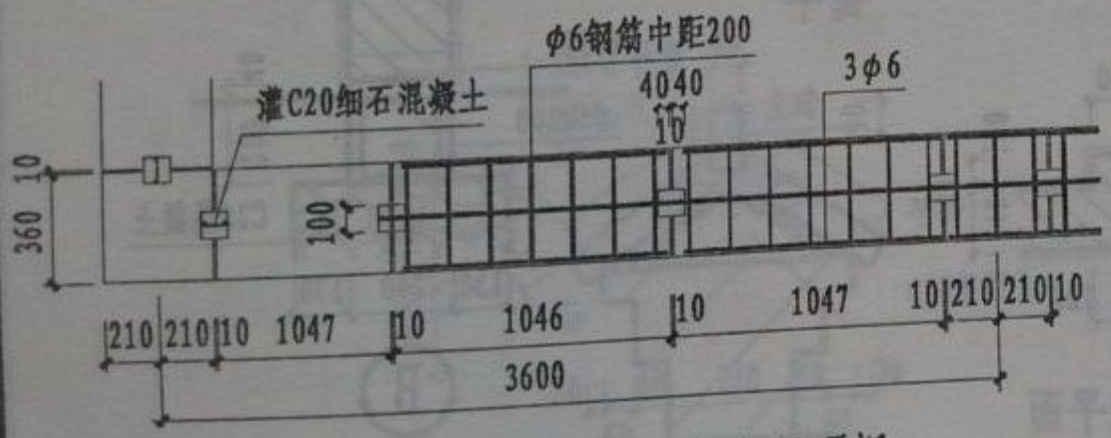
砖围墙选用表	图集号	12J9-1
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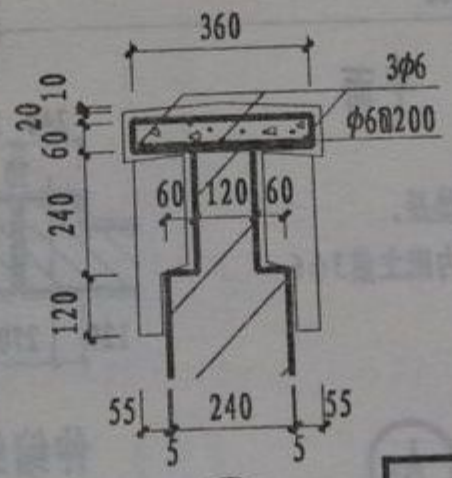
立面

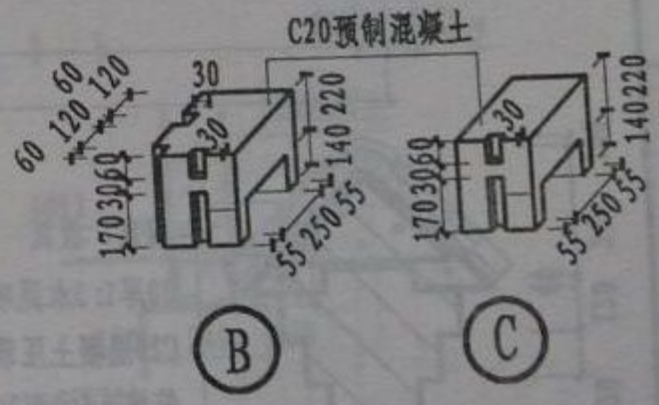




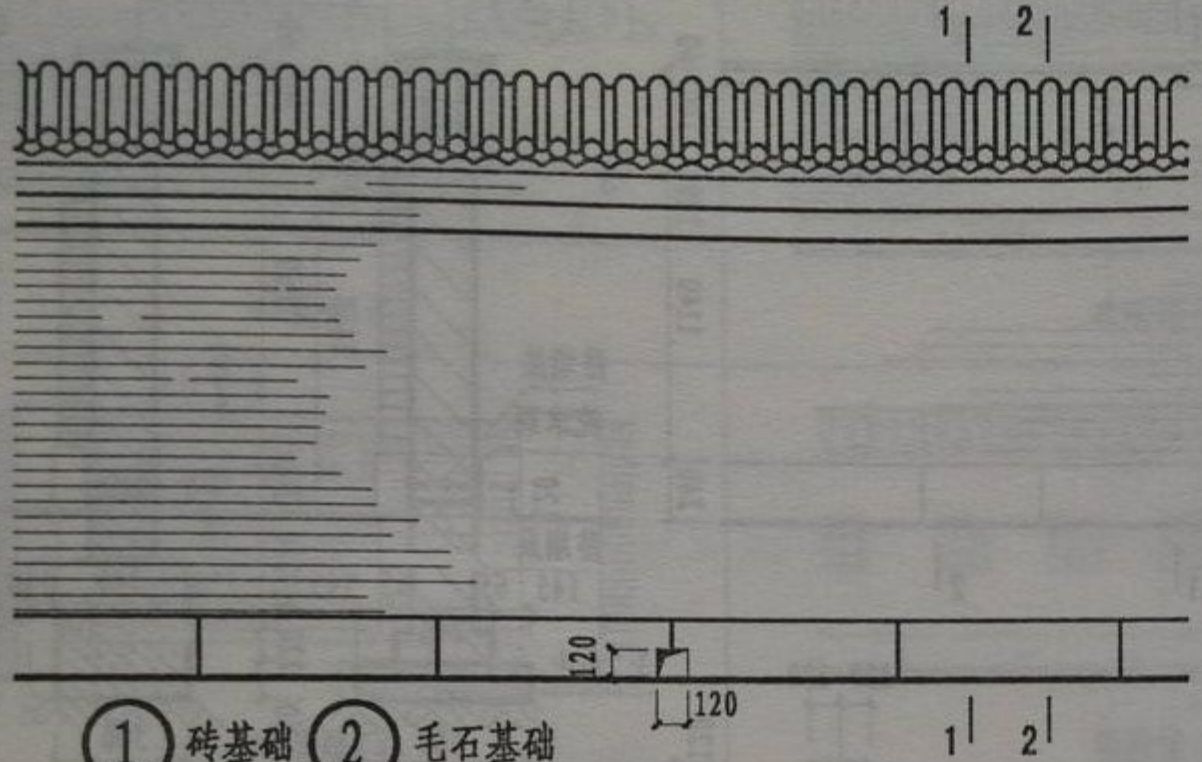


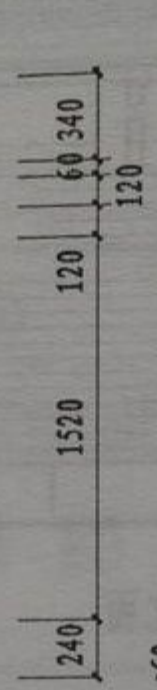
预制混凝土压顶板



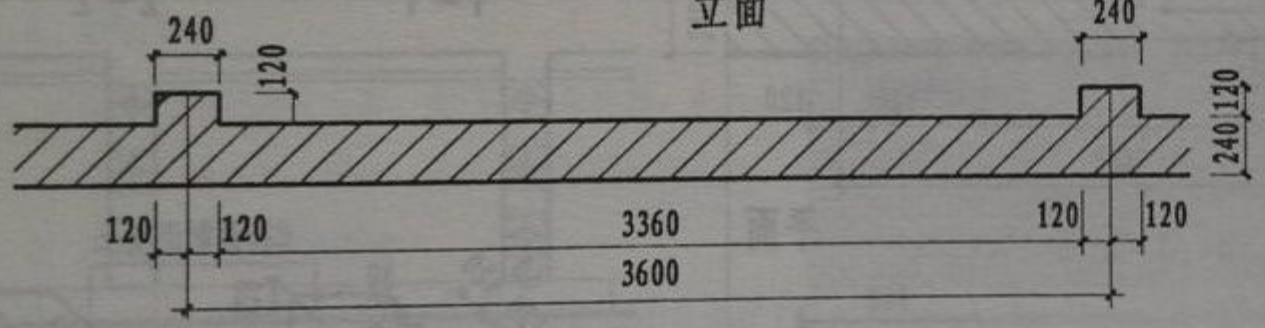


砖围墙（一）	图集号 12J9-1
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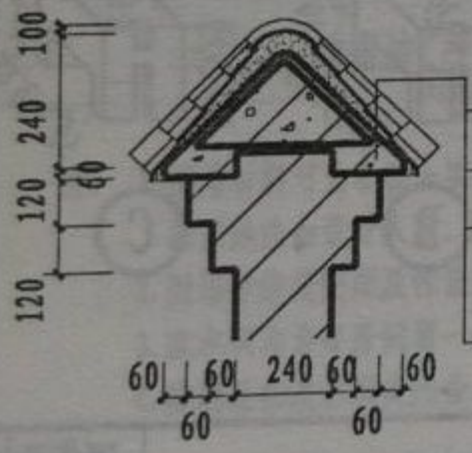




立面

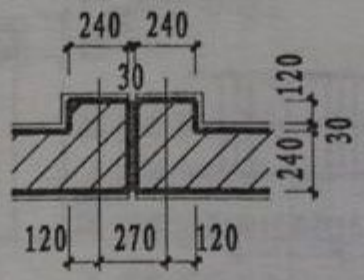


平面



- 筒瓦、板瓦
- 30厚1:3水泥砂浆垫层.
- C20混凝土压顶，内配主筋3φ6
箍筋φ6中距200.
- 1:2水泥砂浆抹面

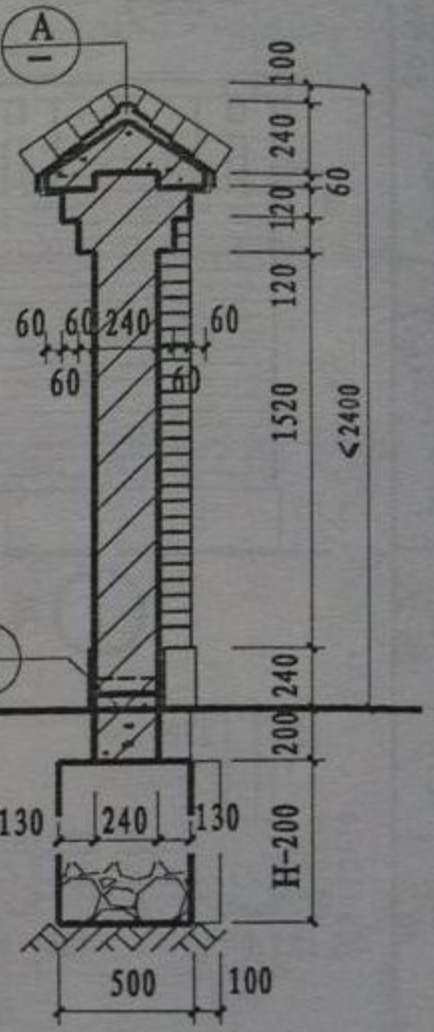
A



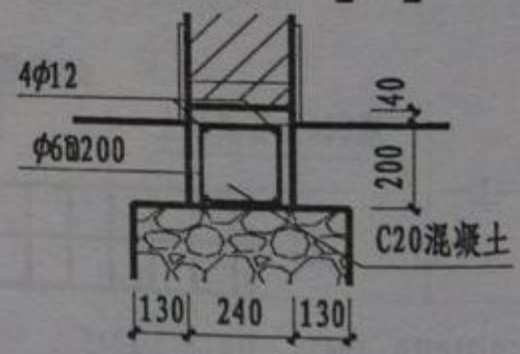
伸缩缝平面



1－1

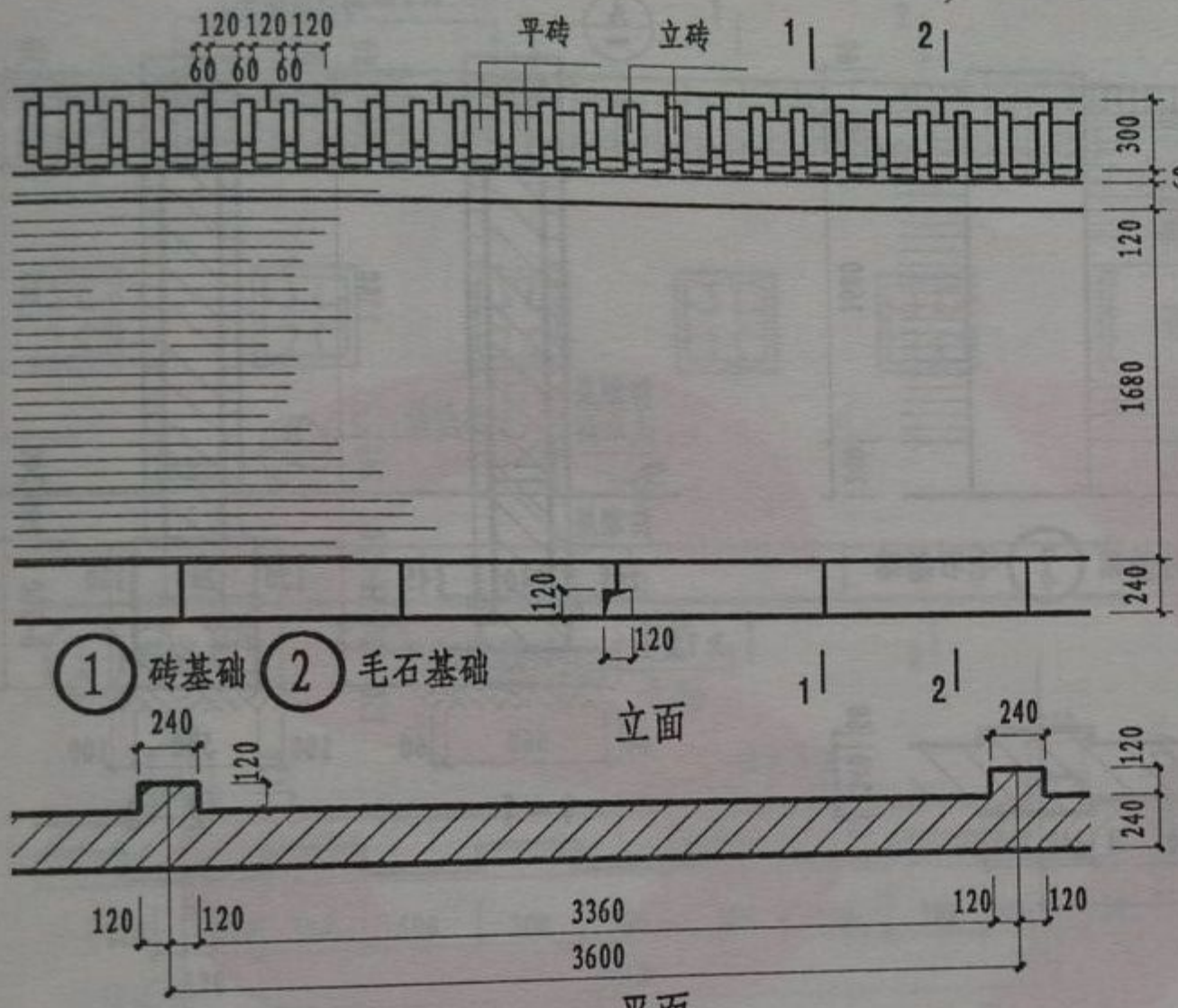


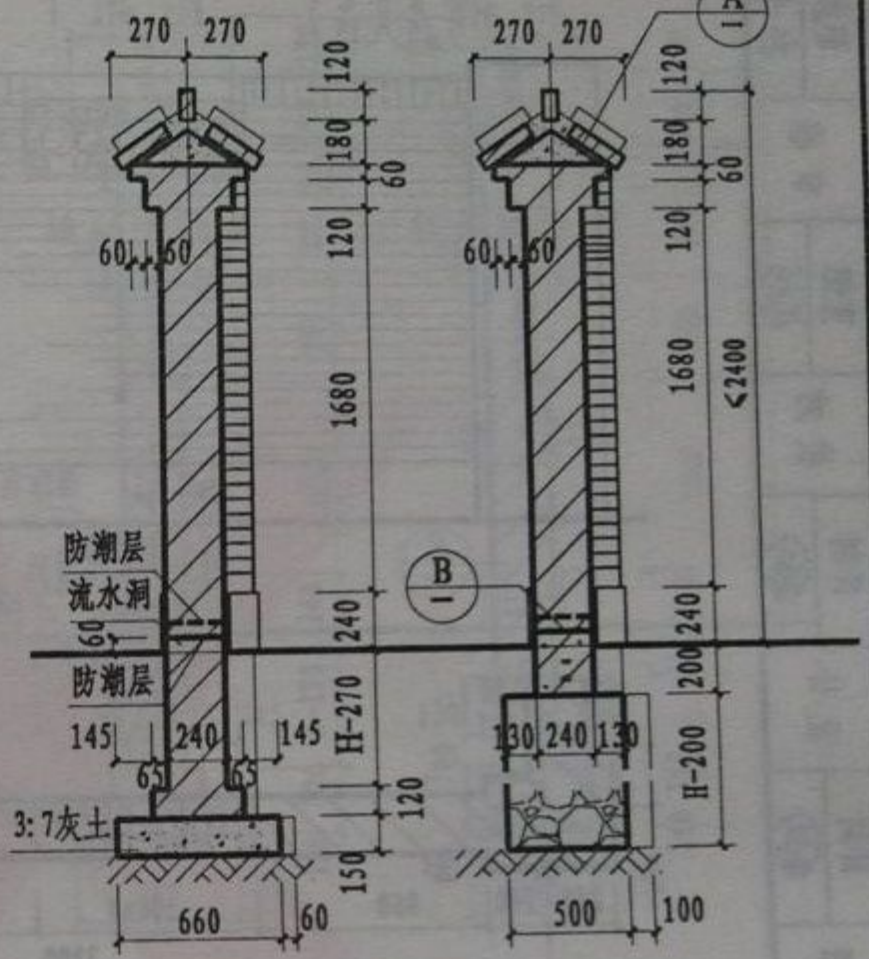
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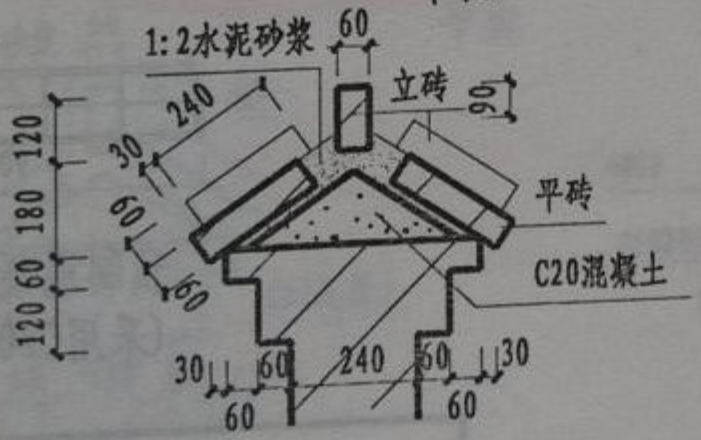


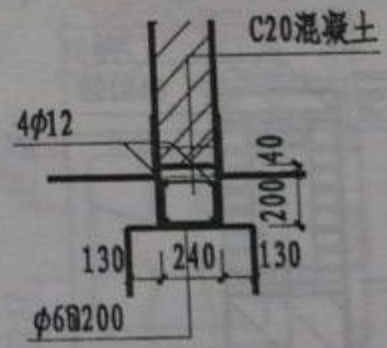
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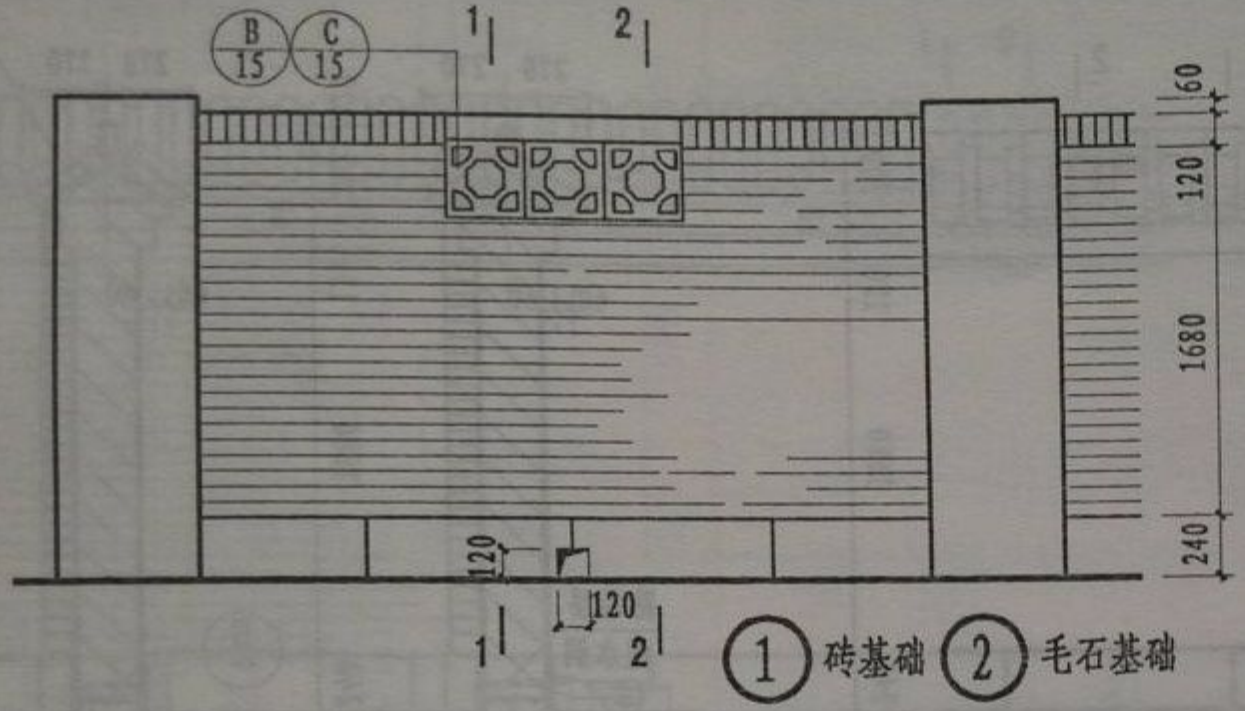




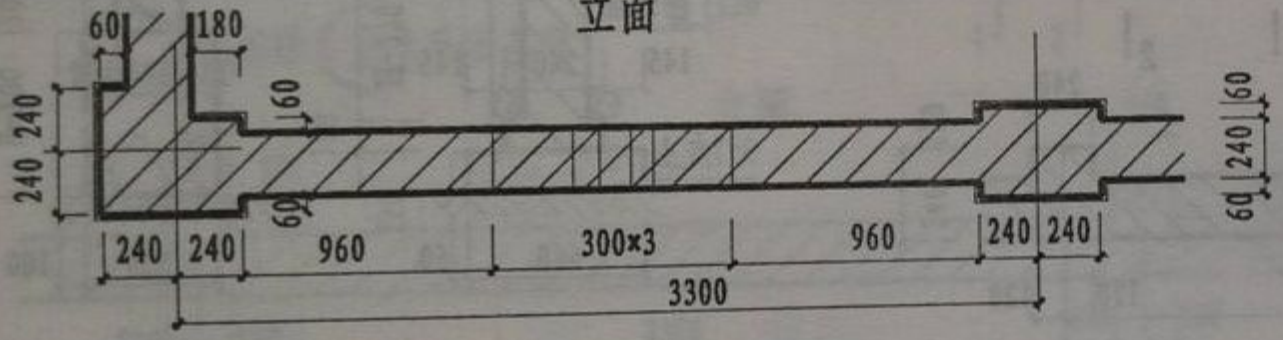




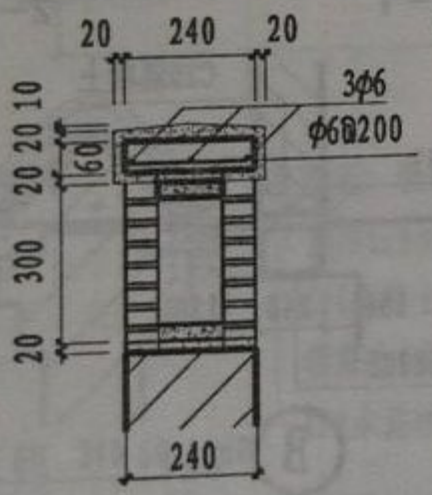
砖围墙（三）	图集号	12J9-1
	页次	4

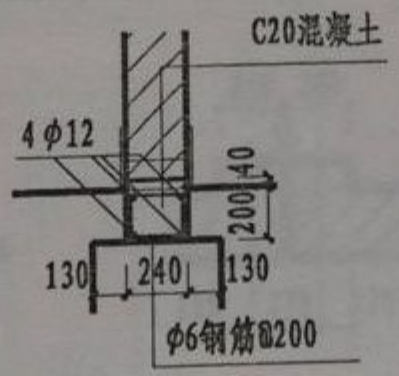


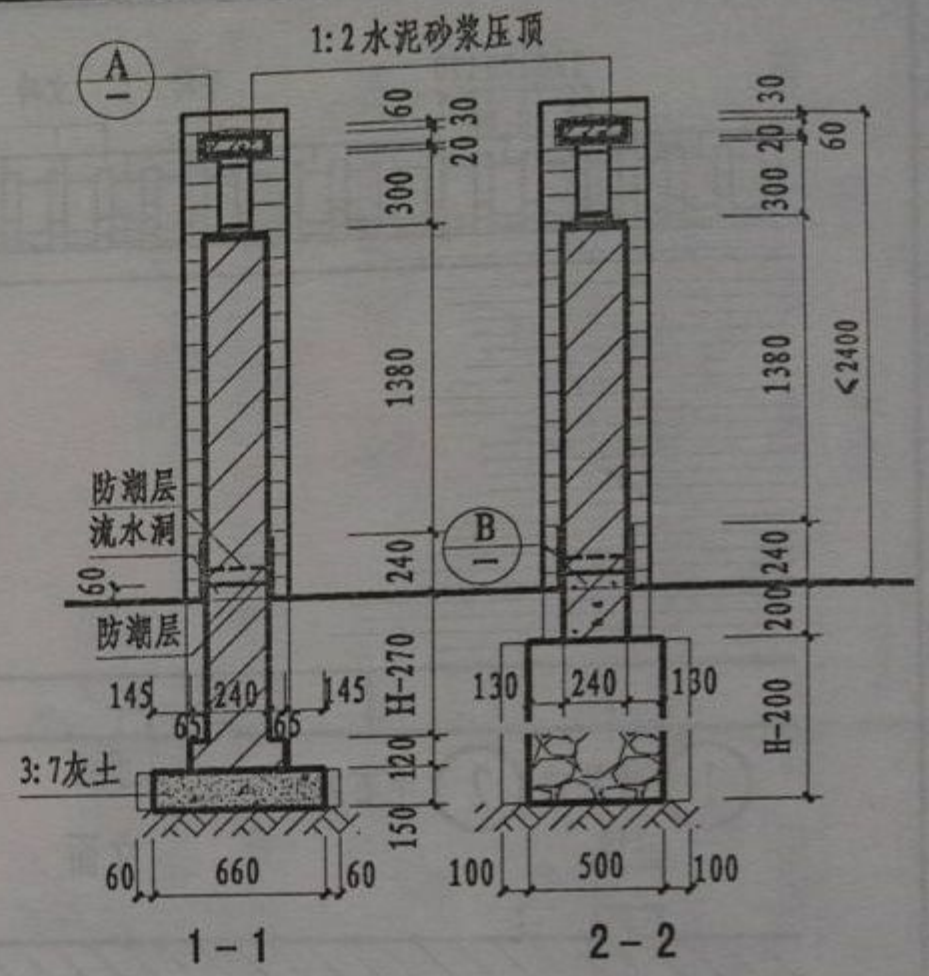
立面

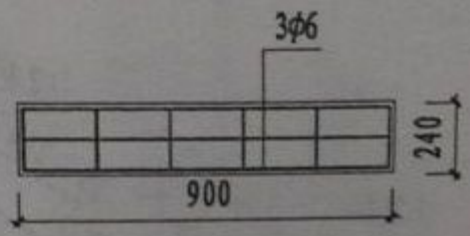


平面



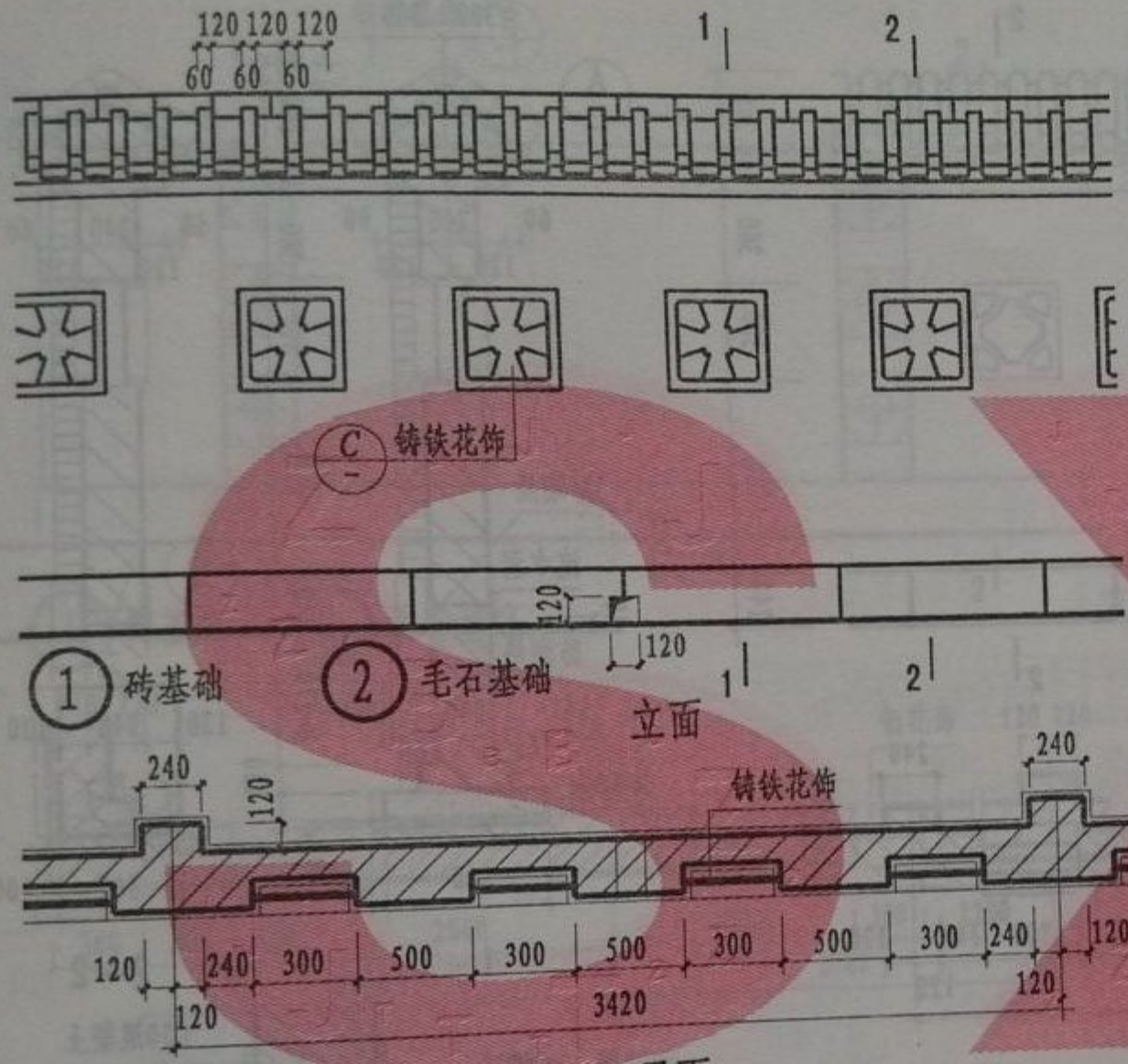




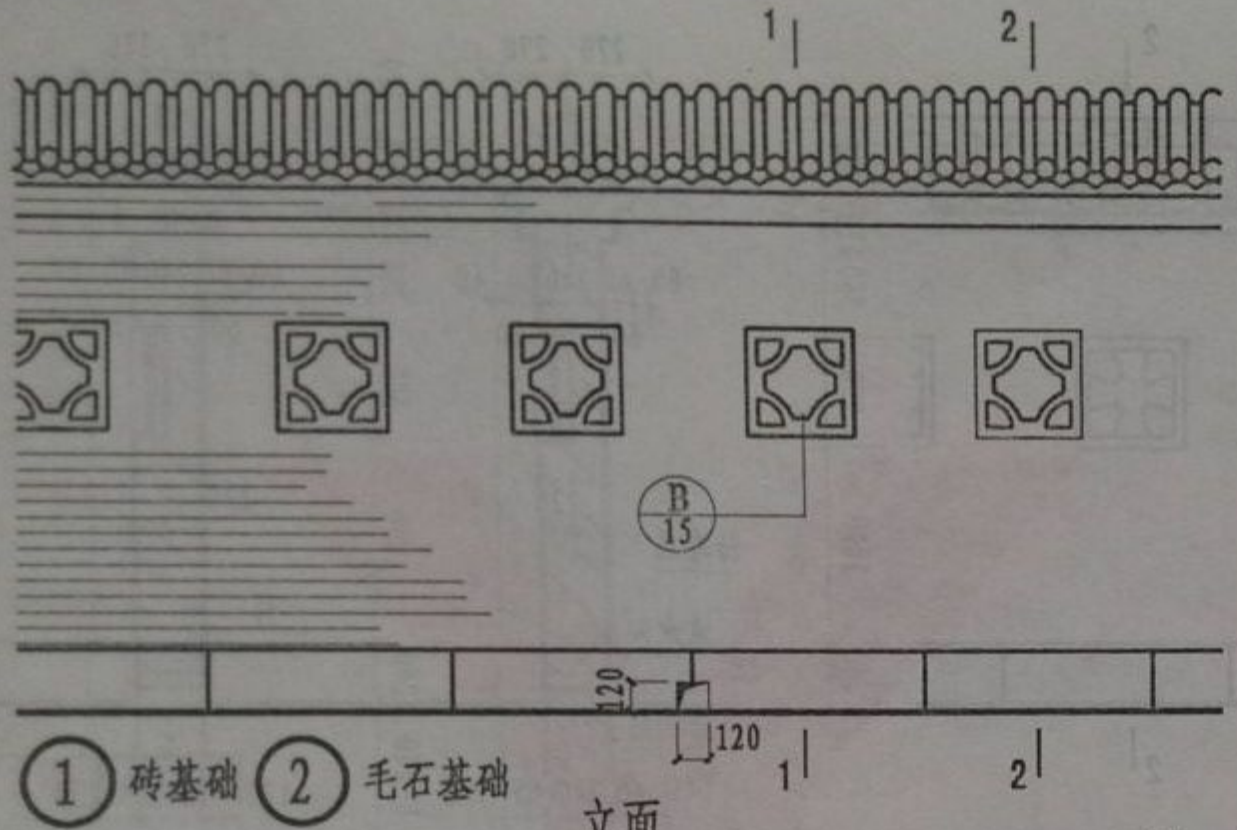


预制混凝土压顶板
(采用C20混凝土)

砖围墙（四）	图集号	12J9-1
	页次	5

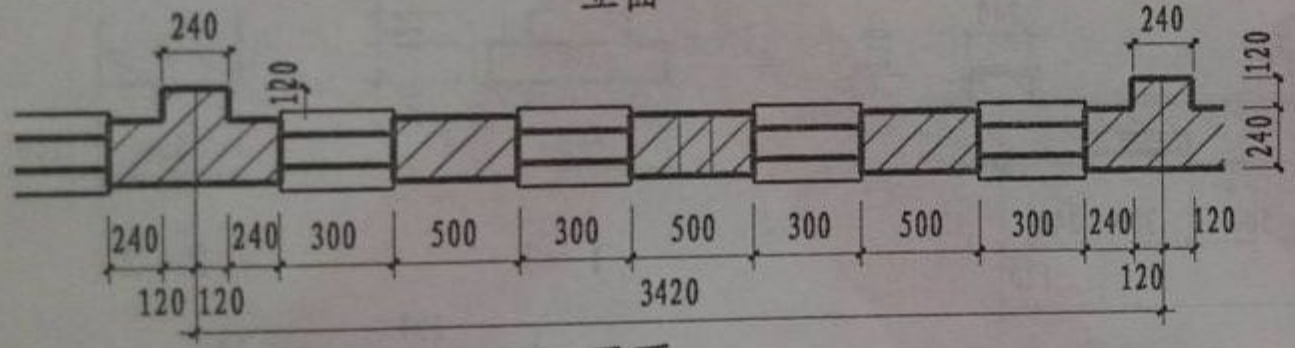


砖围墙（五）	图集号	12J9-1
	页次	6



① 砖基础 ② 毛石基础

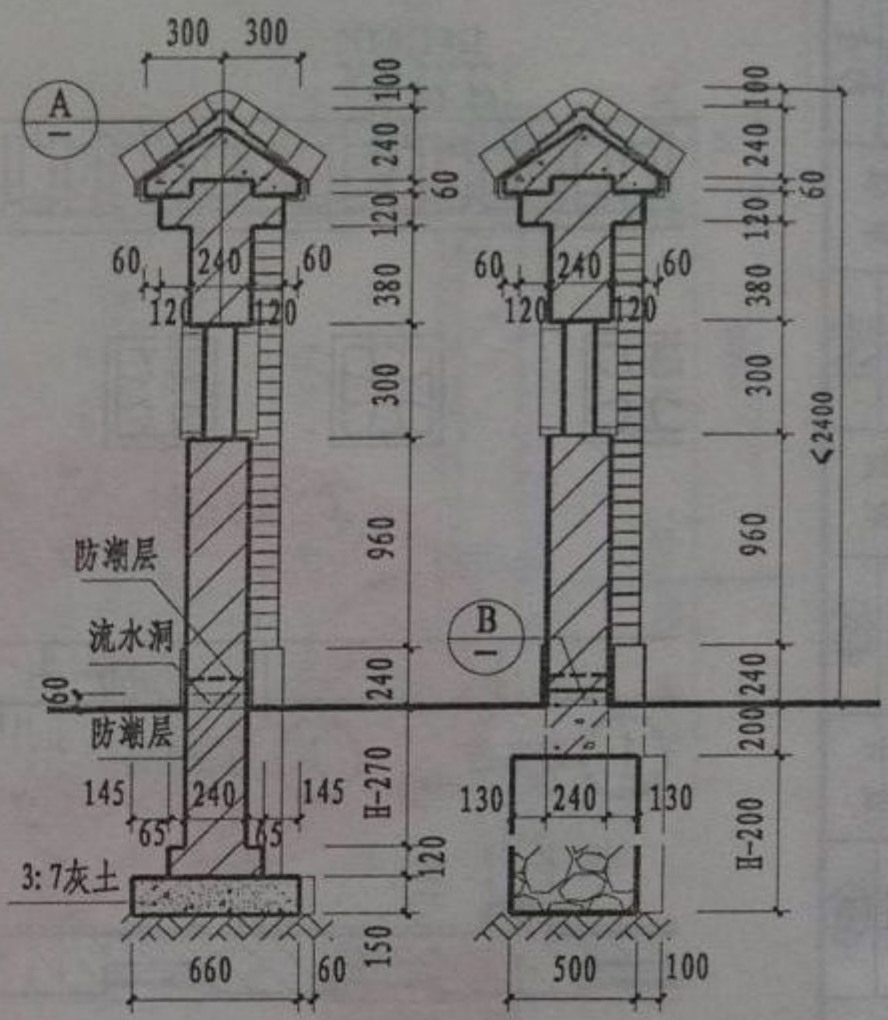
立面

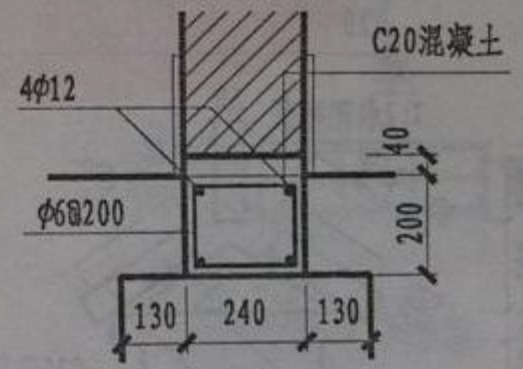


平面



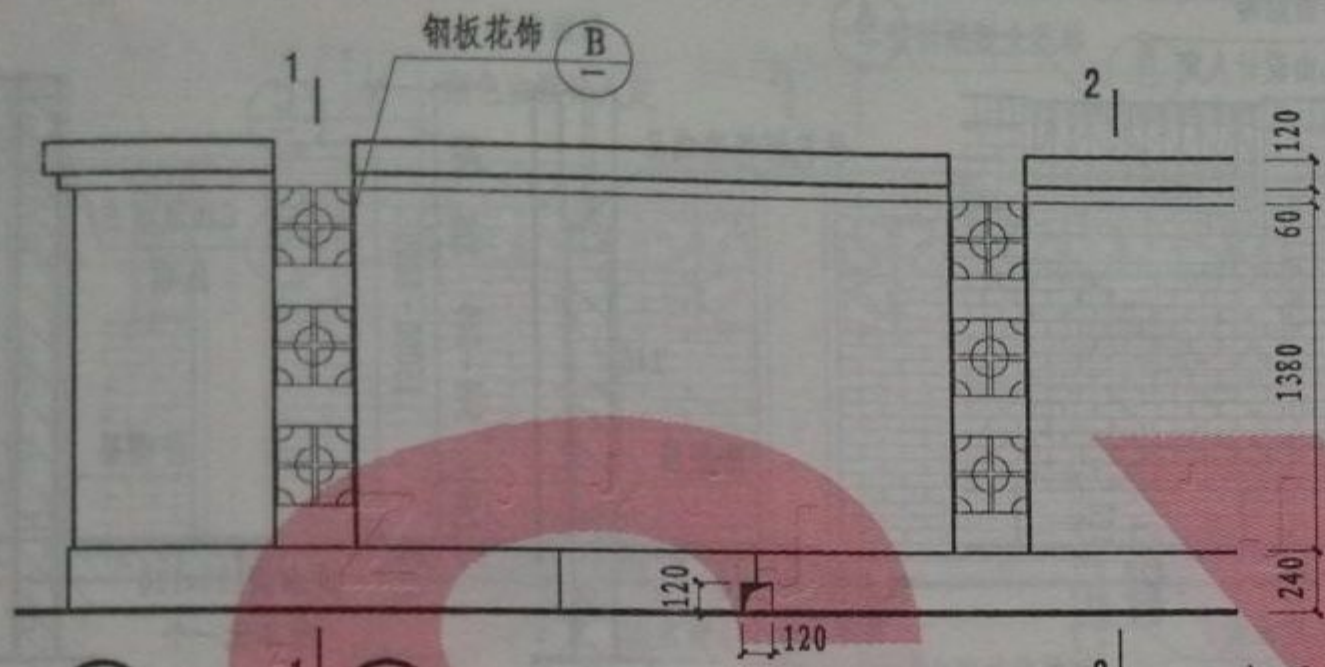
A

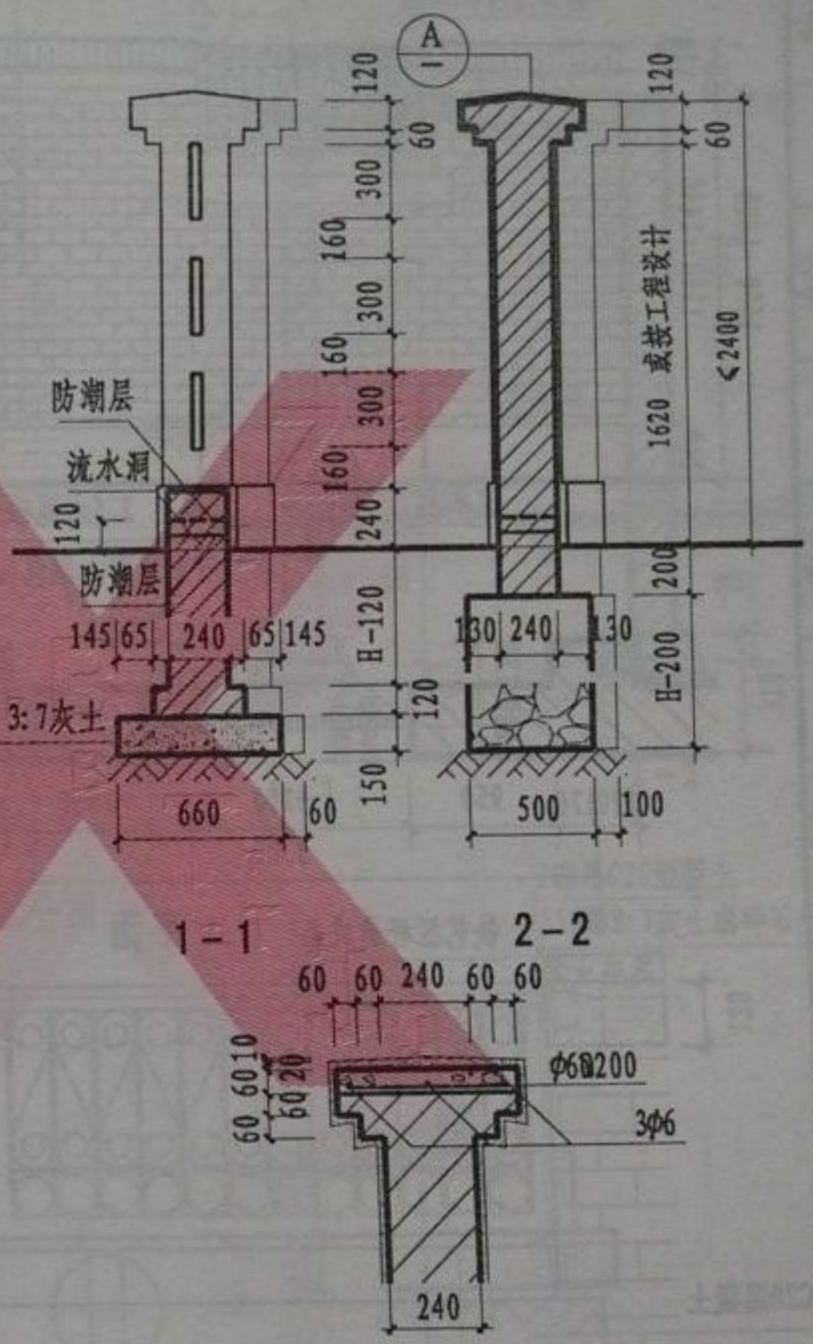




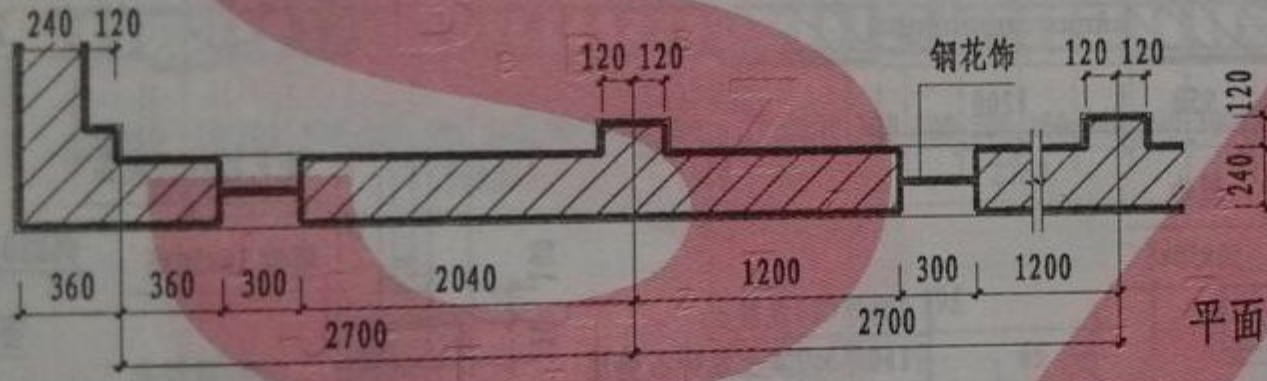
B

砖围墙（六）	图集号	12J9-1
	页次	7

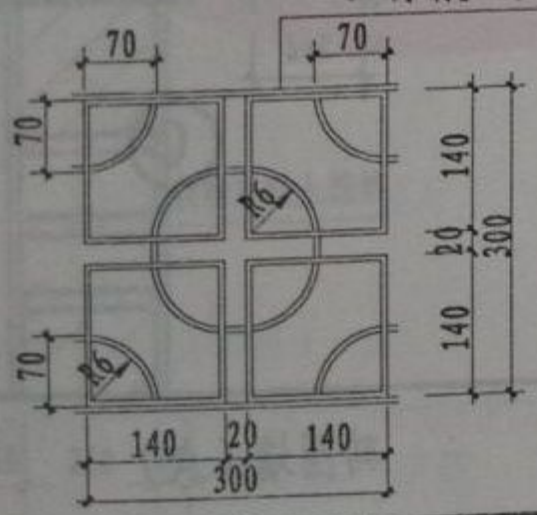




① 砖基础　② 毛石基础

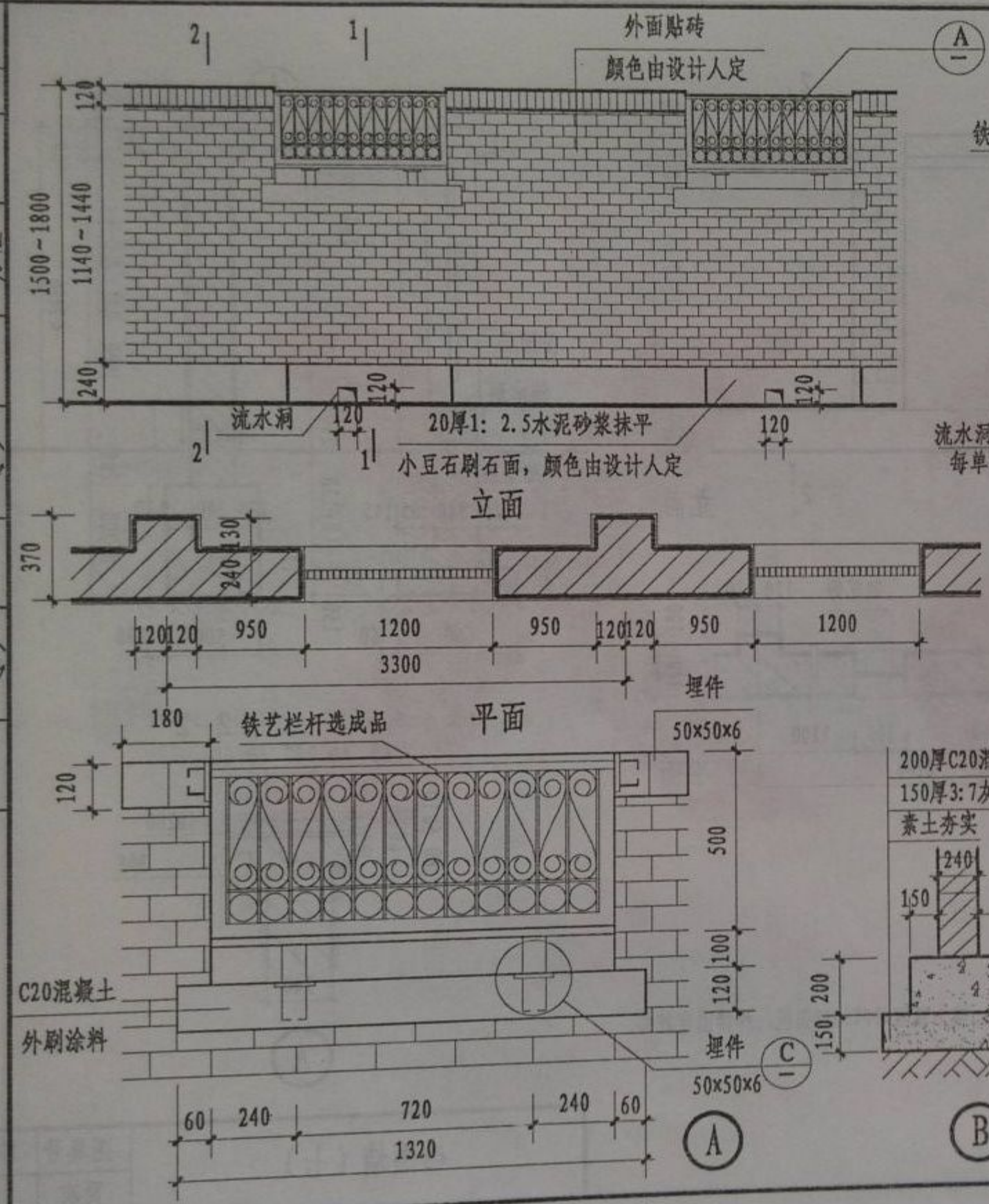


5mm厚钢板，宽50mm



注：墙上预埋400X60X8钢板，焊接固定花饰。

砖围墙（七）	图集号	12J9-1
	页次	8



砖围墙（八）	图集号	12J9-1
	页次	9

外贴面砖
颜色由设计人定
预制混凝土花格
1
2
B
1500~1800
760~1060
300 240 80
120
120 120
流水洞
1:2水泥砂浆抹面
流水洞
每单元一个
立面

A
预制混凝土花格
流水洞
760~1060
300 240 20 60
120
H
基础
详见
C
1-1

防潮层
1360~1660
120 60
60
H
2-2

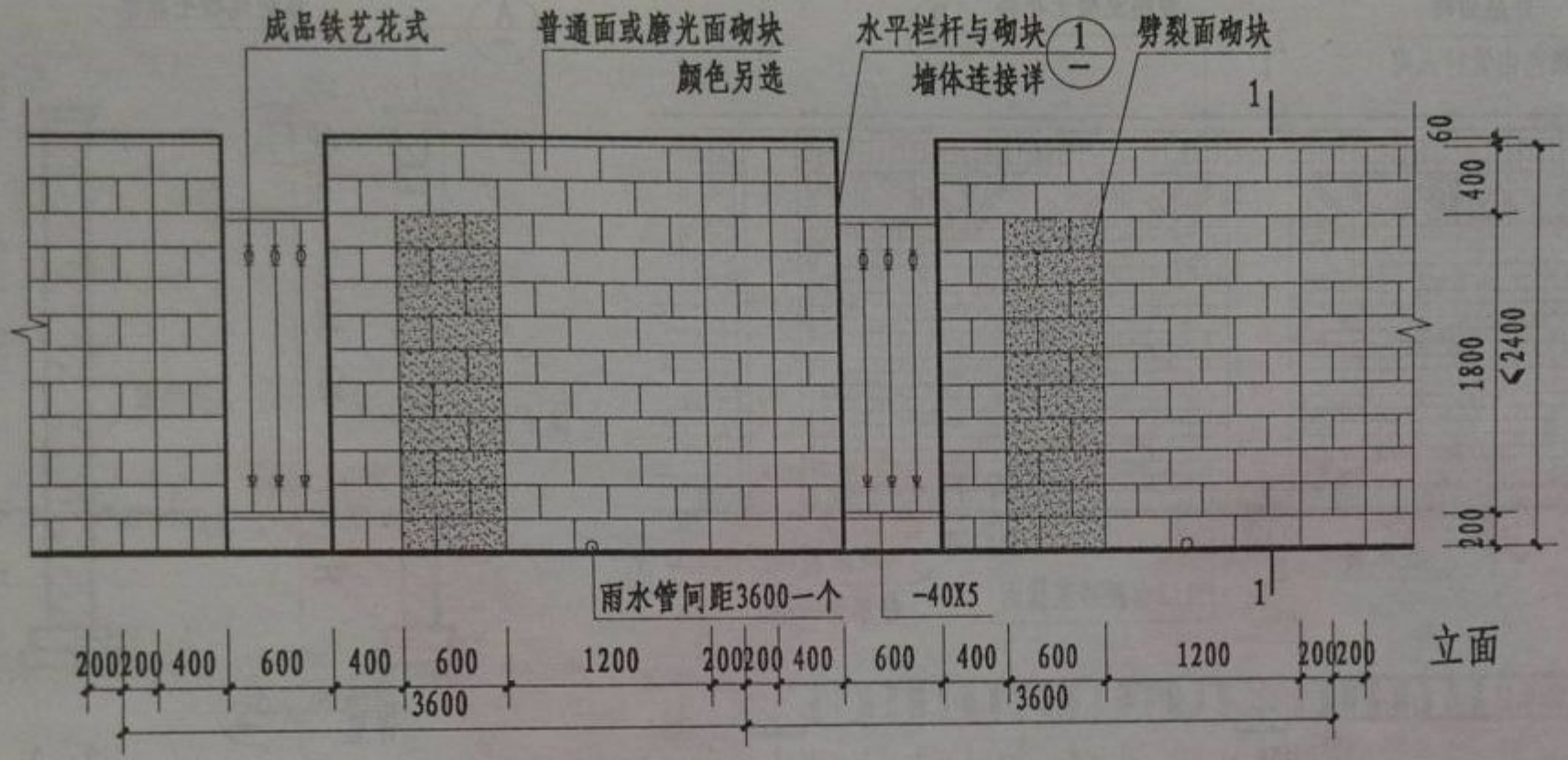
60 240
150
300 60 150 300 300 300 300 300 300 300 300 150 300 300 300 300 300 300 300 300 60 150 300
150 60 2760 60 60 2760 150 60
平面

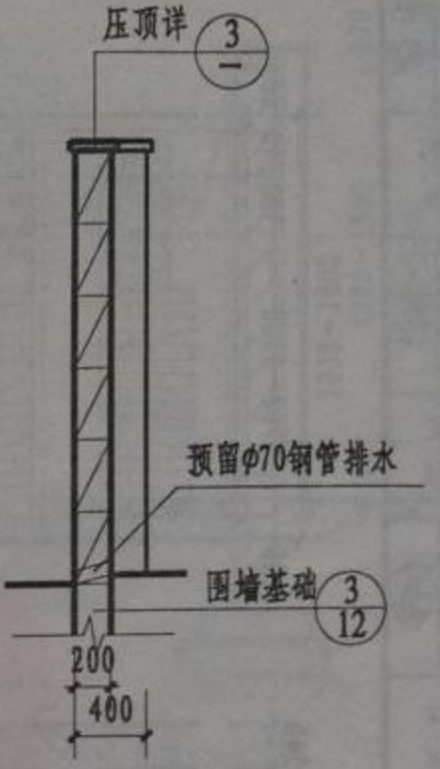
200厚C20混凝土
150厚3:7灰土或砖石垫层
素土夯实
200
150
C

3φ6
φ6@200
60 20
240
300
预制混凝土花格
A
60 240 60

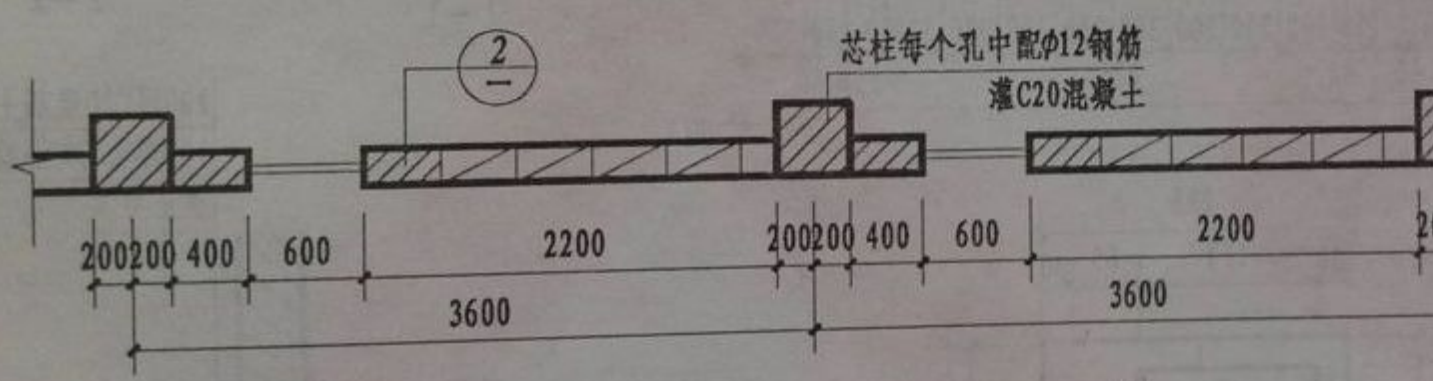
295
30 170 65 30
30
170
65
30
145
R=100
预留φ20孔φ8插筋
1:2水泥砂浆卧牢
B

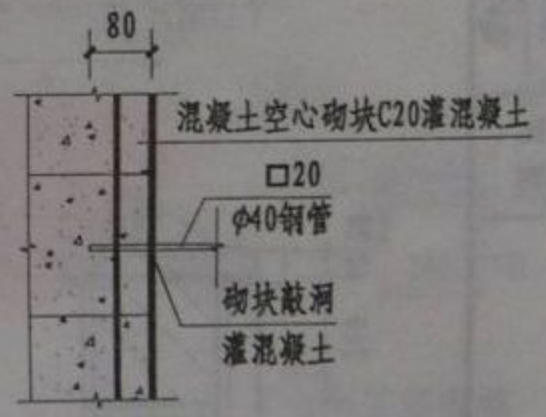
砖围墙（九）	图集号	12J9-1
	页次	10



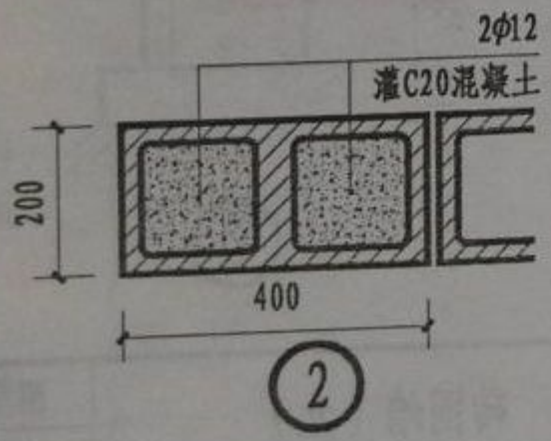


1-1

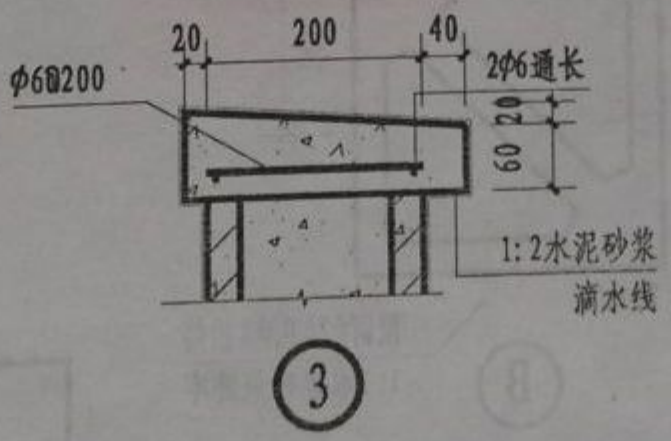




①



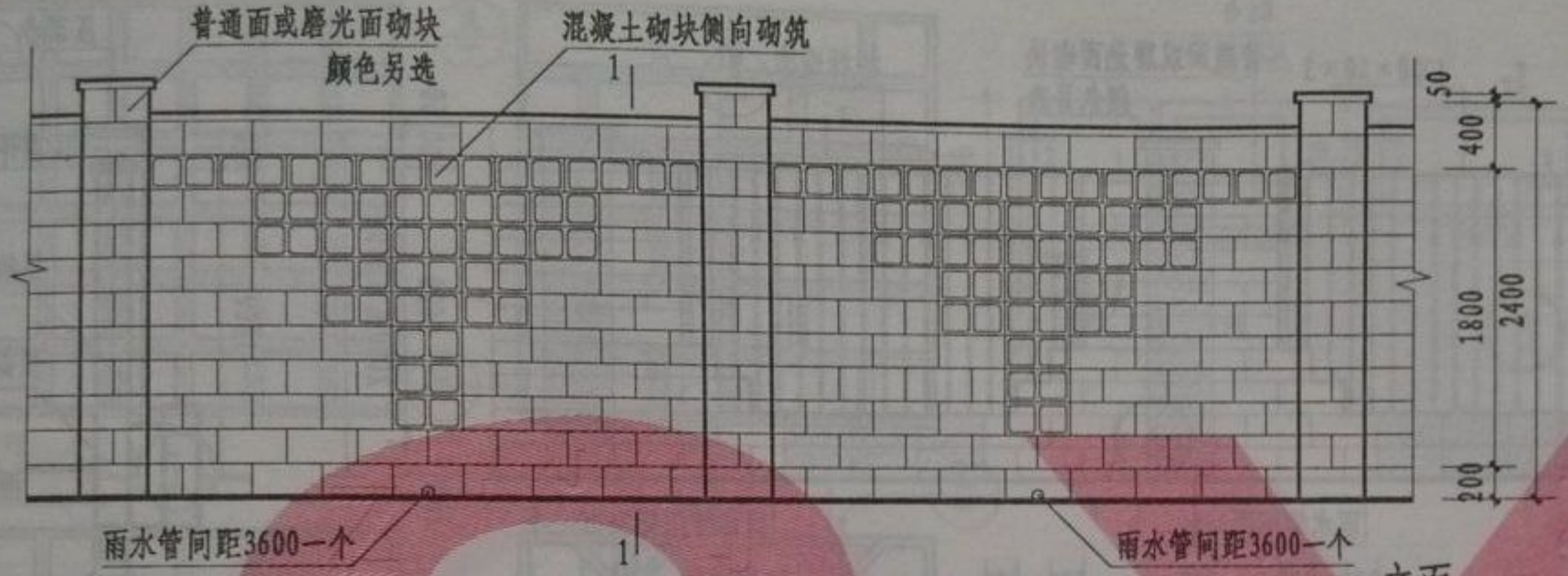
②



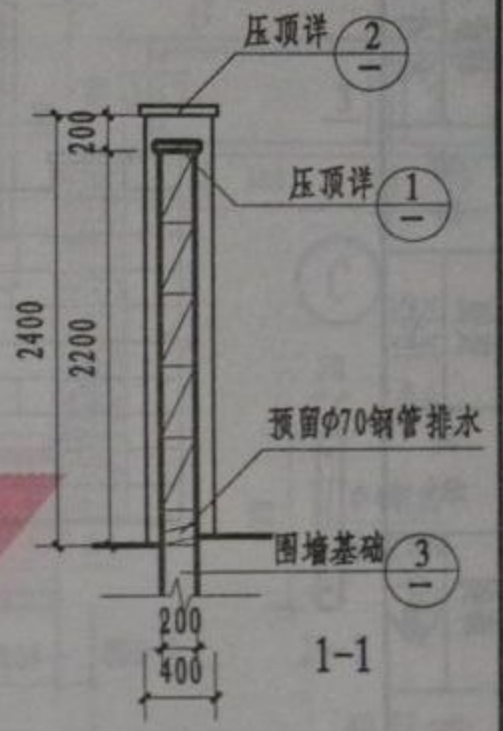
③

注：1.围墙外围采用清水墙面，1:1水泥砂浆勾缝。

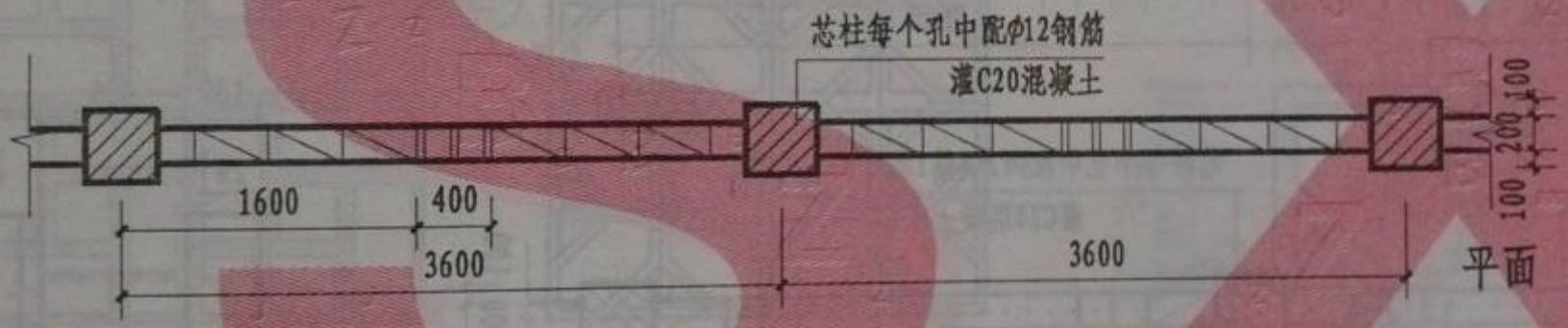
混凝土砌块围墙（一）	图集号	12J9-1
	页次	11



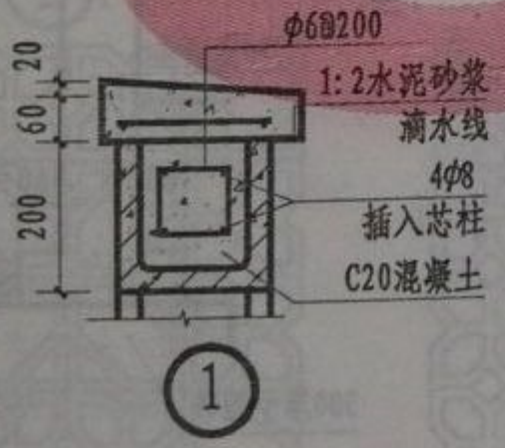
立面



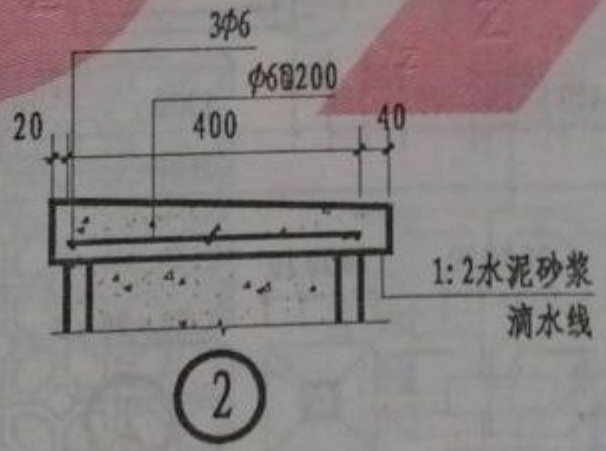
1-1



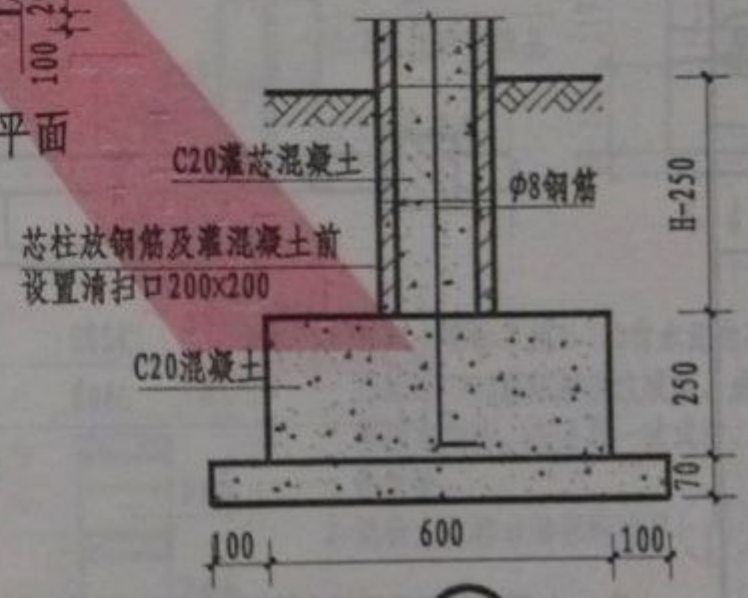
平面



①



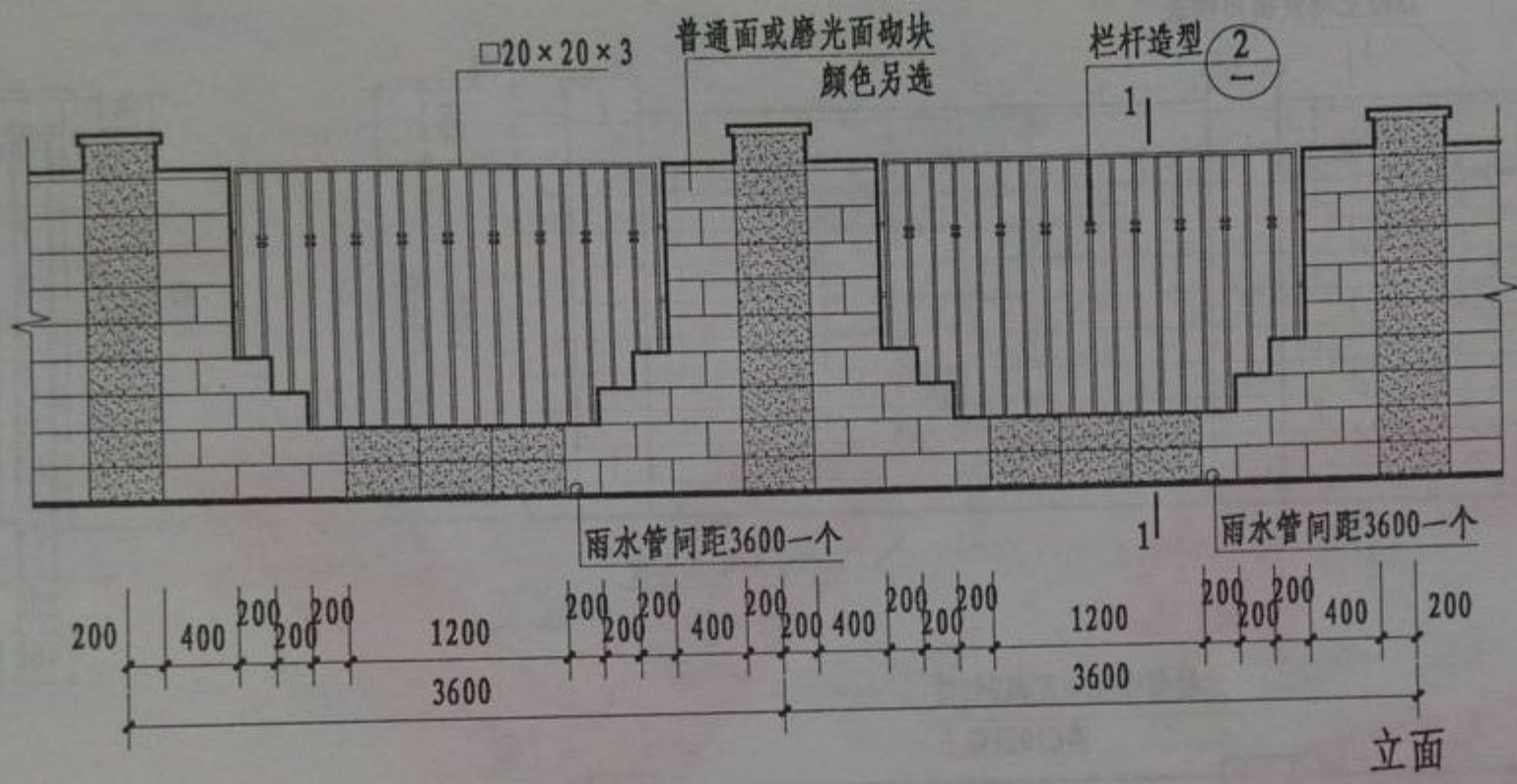
②

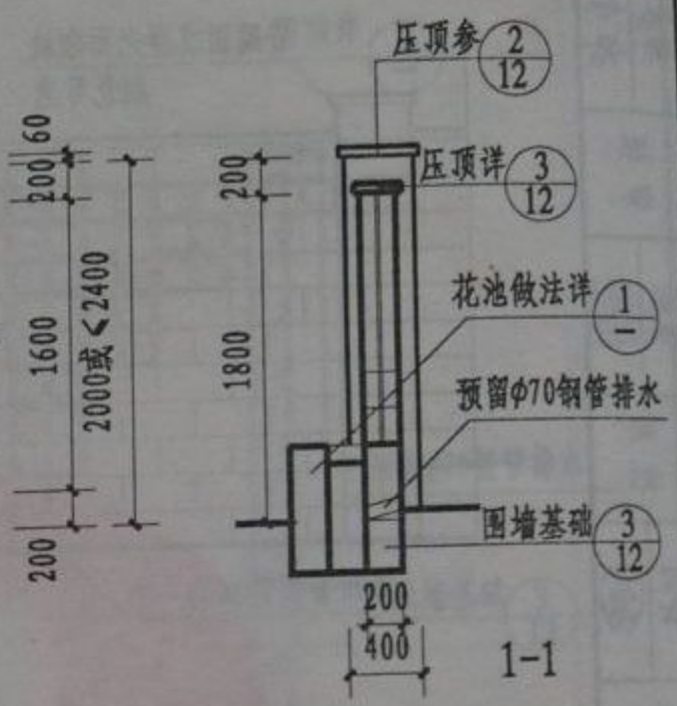


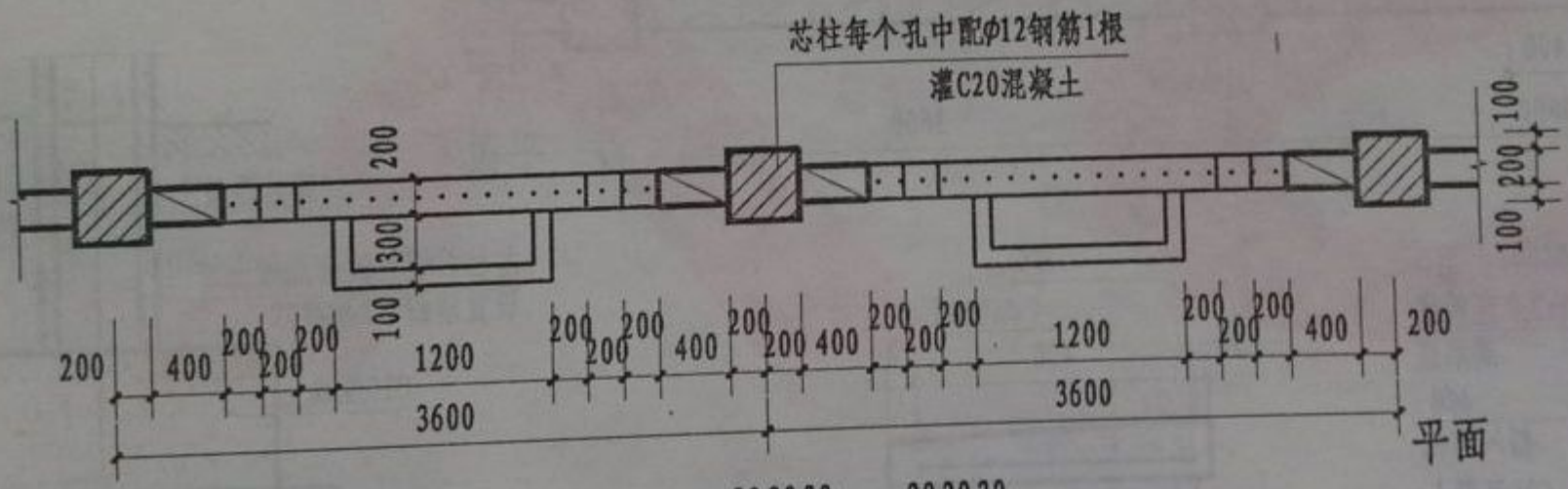
③

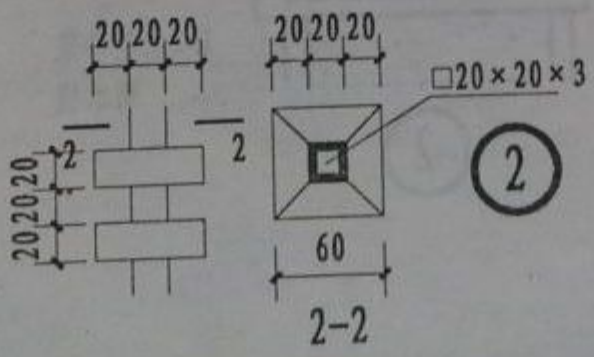
注：1. 围墙外围采用清水墙面，1:1水泥砂浆勾缝。

混凝土砌块围墙（二）	图集号	12J9-1
	页次	12





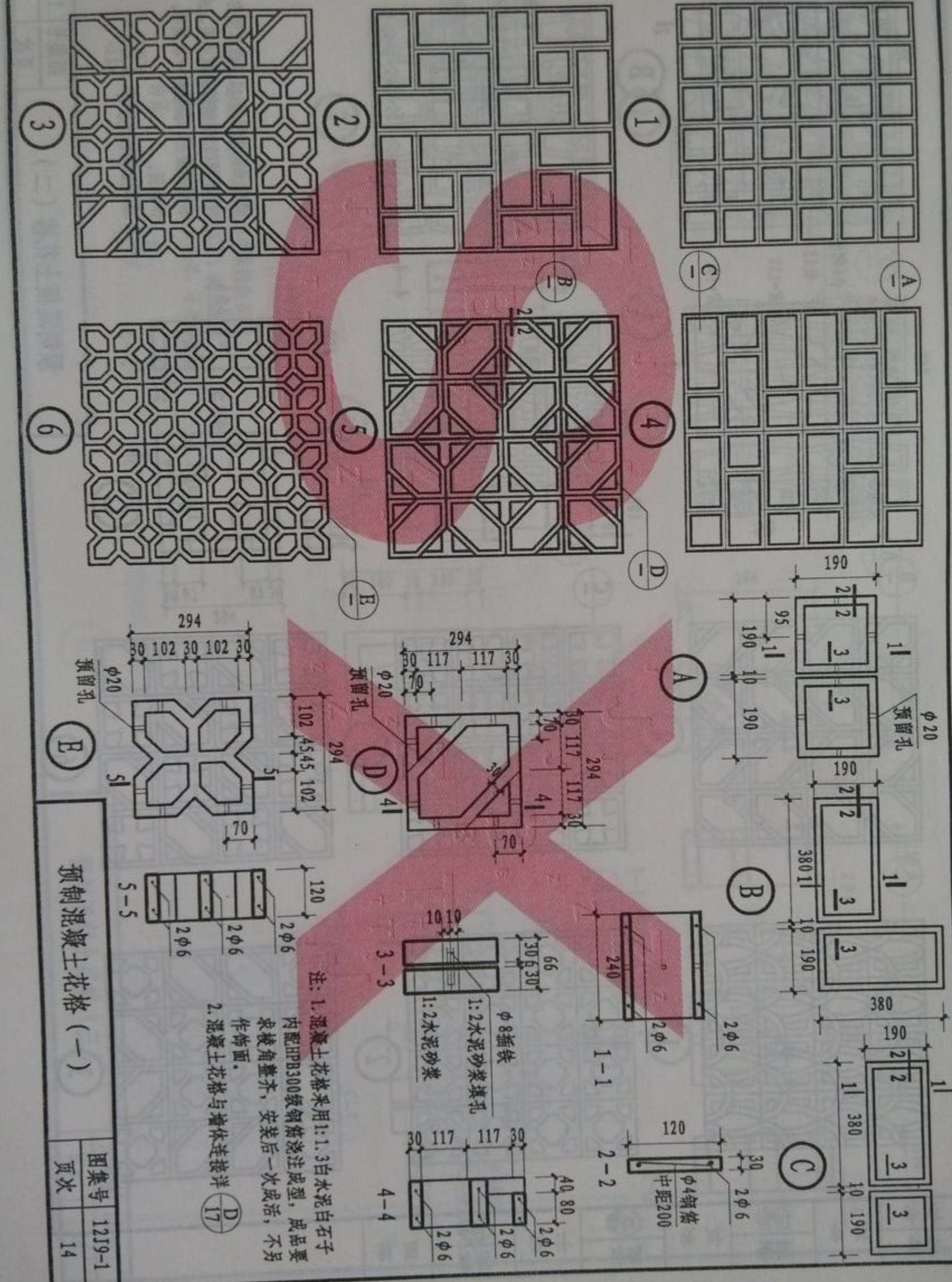




注：1. 围墙外围采用清水墙面，1:1水泥砂浆勾缝。

混凝土砌块围墙（三）	图集号	12J9-1
	页次	13

制图	薛剑	设计	薛剑	校对	张恒	审核	郭彦
					张恒		郭彦



注：1. 混凝土花格采用1:1.3白水泥白石子内配HPB300级钢筋浇注成型，成品要求棱角整齐，安装后一次成活，不另作饰面。

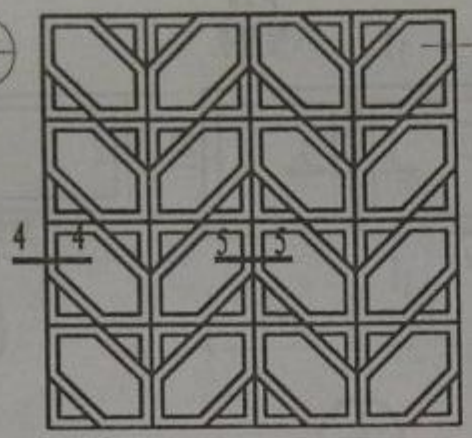
2. 混凝土花格与墙体连接详 D 17

预制混凝土花格（一）

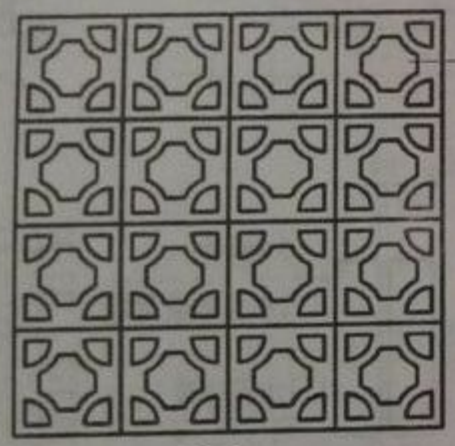
图集号	12J9-1
页次	14



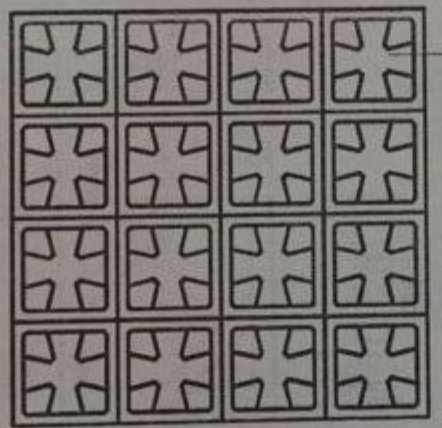
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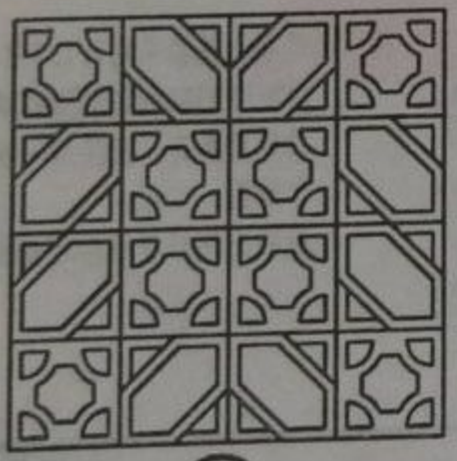
4



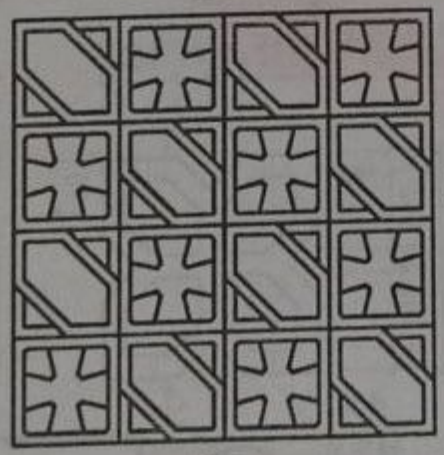
2



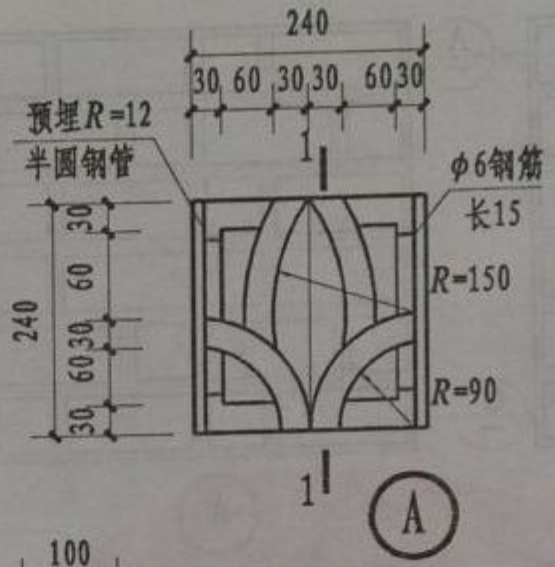
5

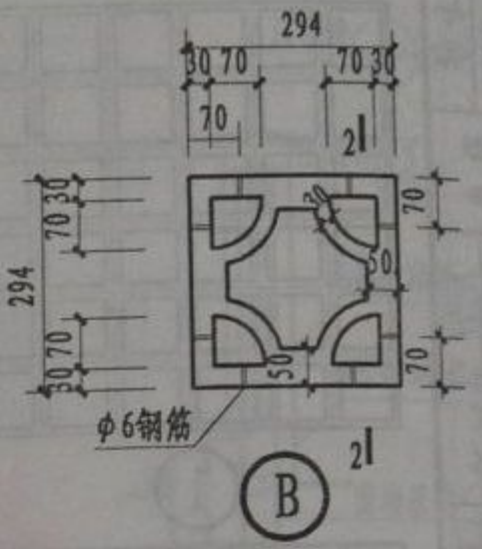


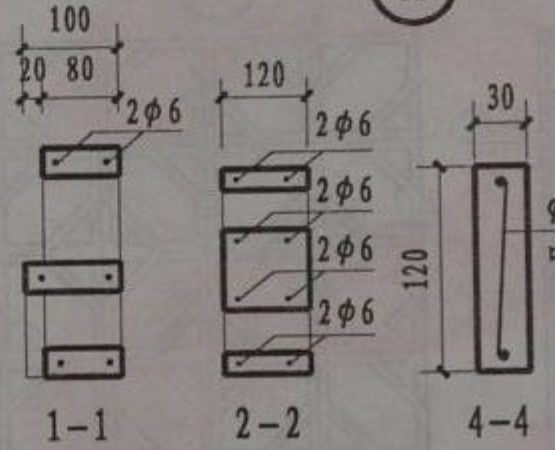
3

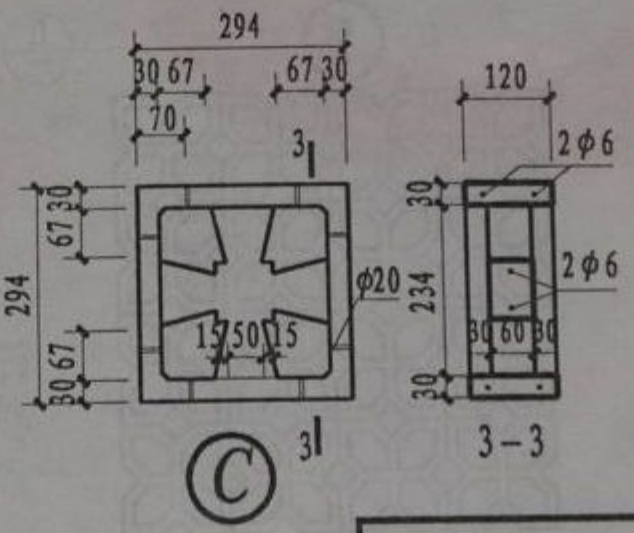


6





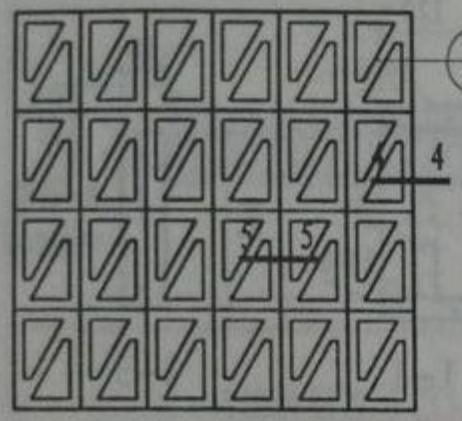




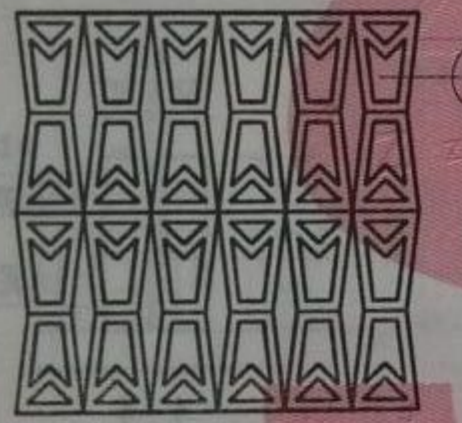
注：1. 混凝土花格采用1:1.3白水泥白石子内配HPB235级钢筋浇筑成型，成品要求棱角整齐，安装后一次成活，不另作饰面。

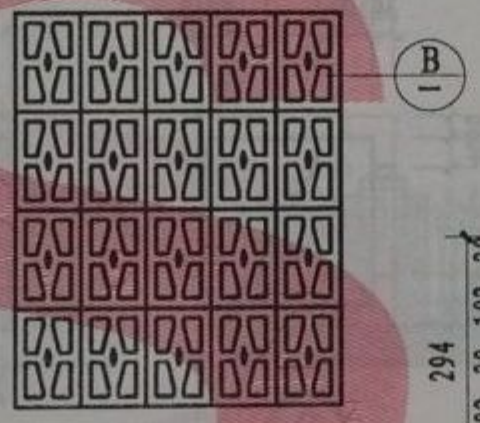
2. 混凝土花格连接详 D/17

预制混凝土花格（二）	图集号	12J9-1
	页次	15

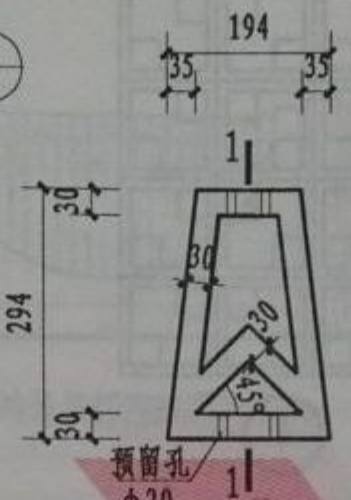


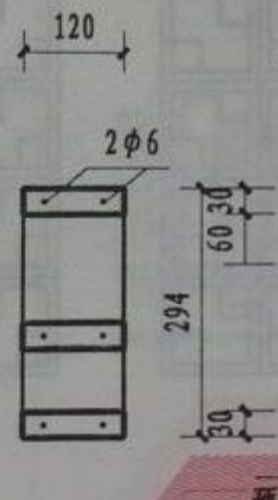
① ③

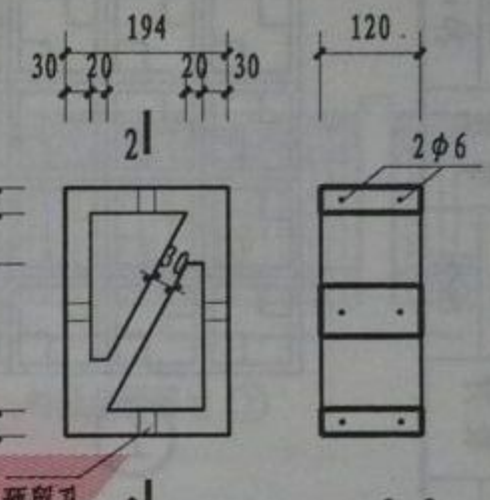


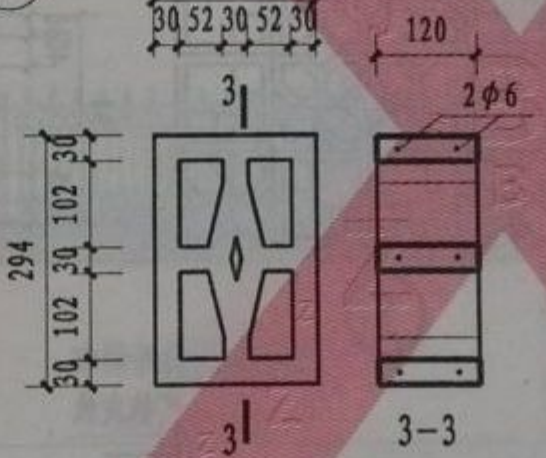


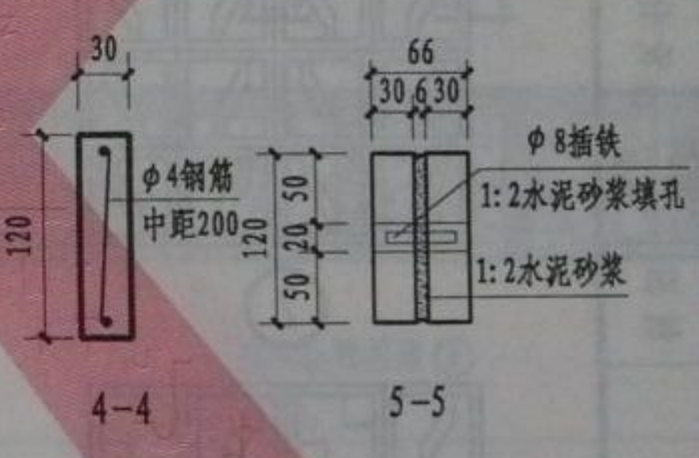
② ④











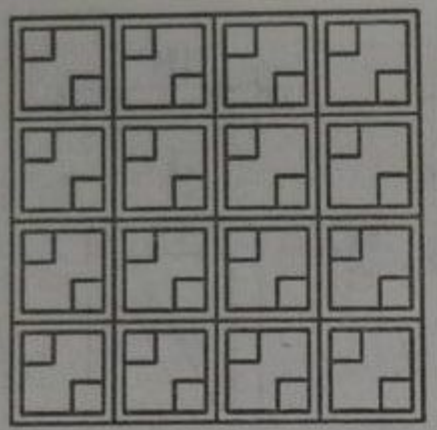
注:1. 混凝土花格采用1:1.3白水泥白石子内配HPB235级钢浇筑成型，成品要求棱角整齐，安装后一次成活，不另作饰面;

2. 混凝土花格连接详 D/17

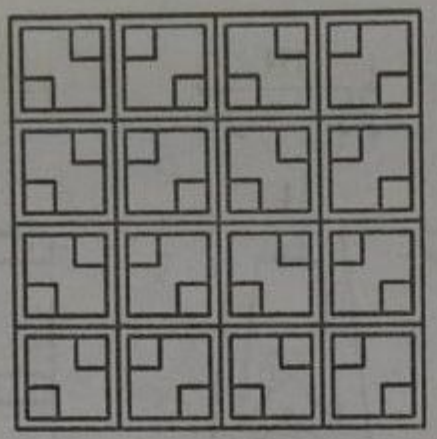
预制混凝土花格（三）	图集号	12J9-1
	页次	16

制图	薛剑	设计	薛剑	校对	张恒	审核	郭彦

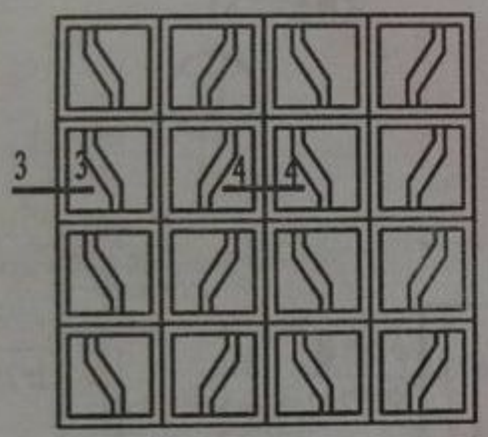
设计 薛剑
校对 张恒
审核 郭彦
制图 薛剑



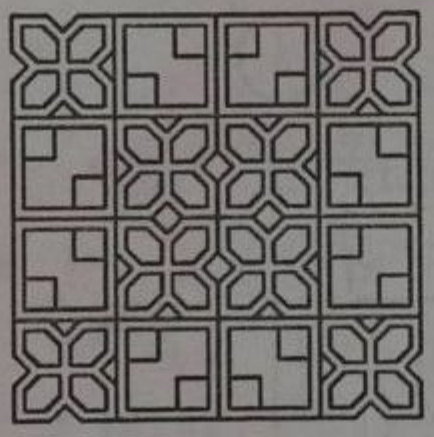
①



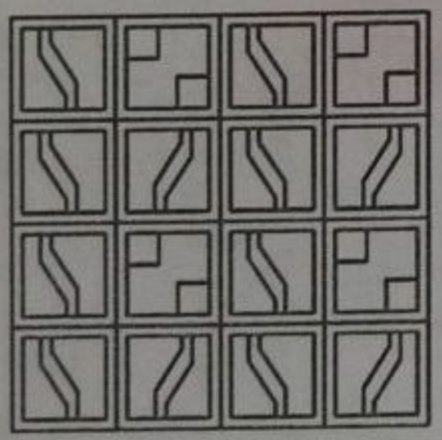
④



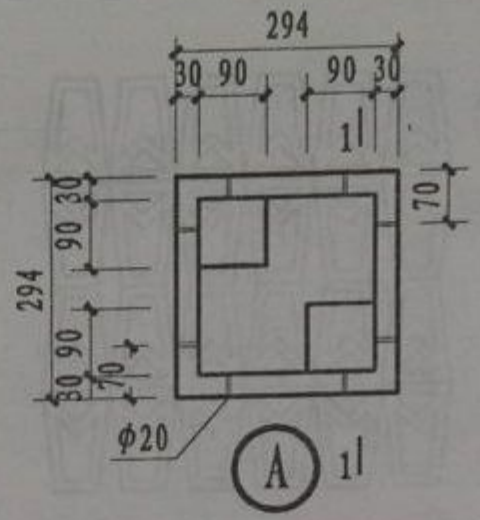
②



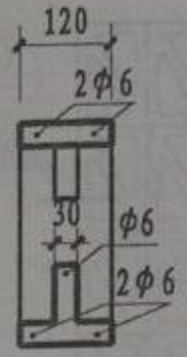
⑤



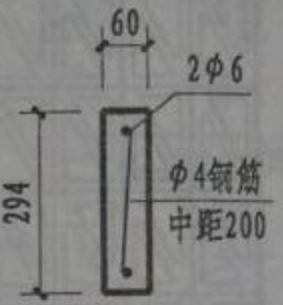
③



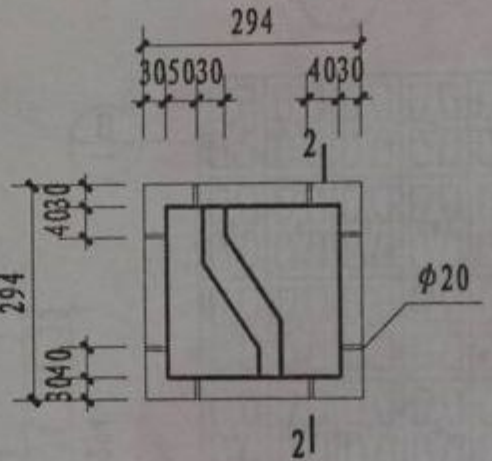
A 1



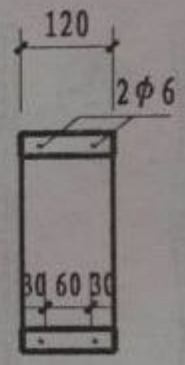
1-1



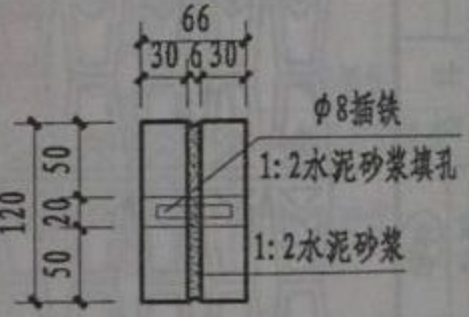
3-3



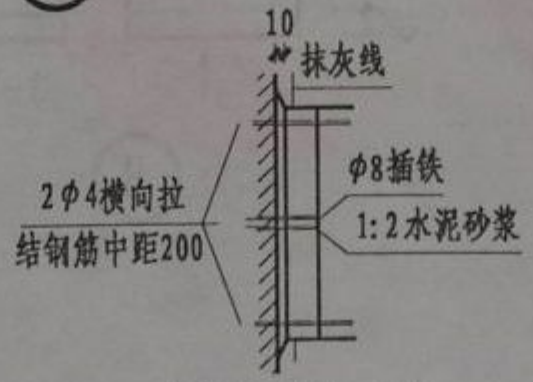
2 C



2-2



4-4

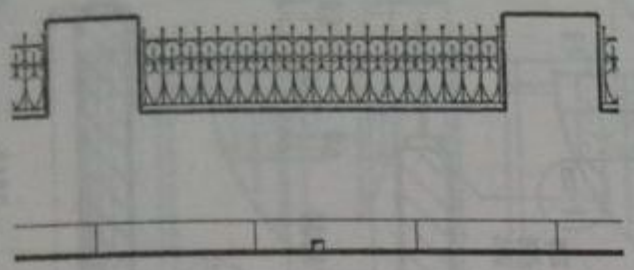


花格与墙体连接

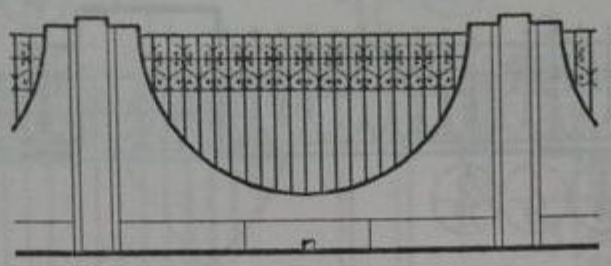
D

注：1. 混凝土花格采用1:1.3白水泥白石子内配HPB235级钢浇筑成型，成品要求角棱整齐，安装后一次成活，不另作饰面；

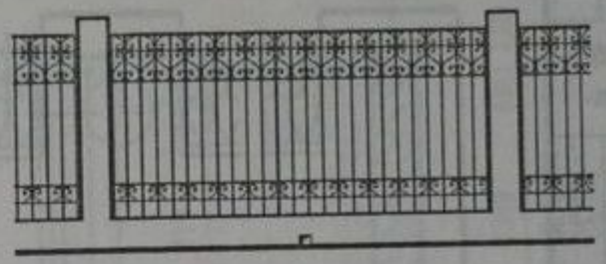
预制混凝土花格（四）	图集号	12J9-1
	页次	17



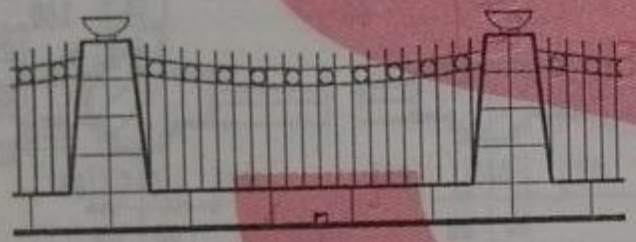
砖垛铁栅围墙①



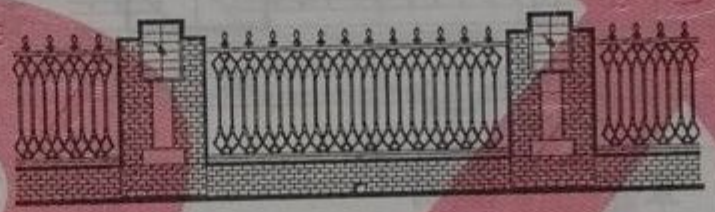
砖垛铁栅围墙②



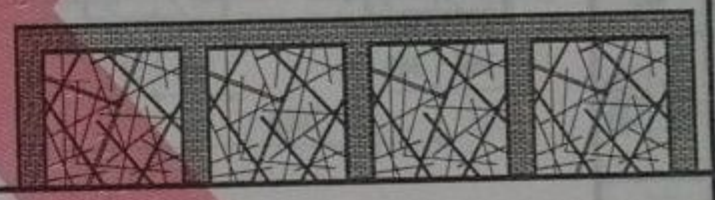
砖垛铁栅围墙③



砖垛铁栅围墙④



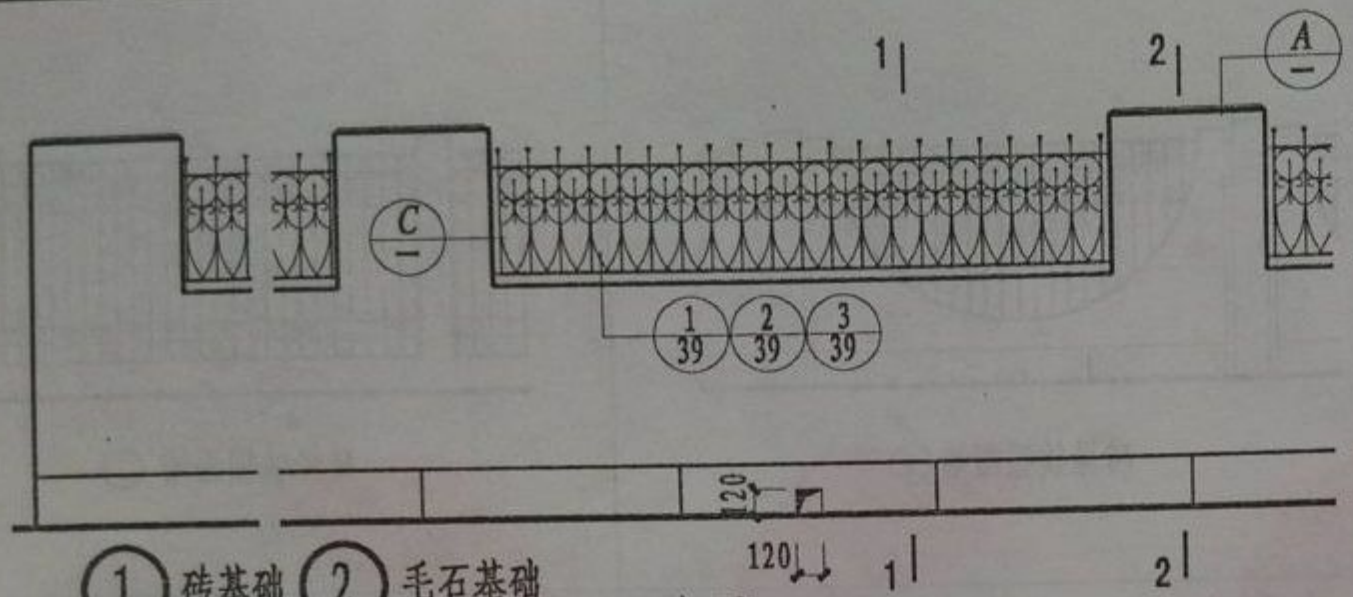
砖垛铁栅围墙⑤



砖垛铁栅围墙⑥

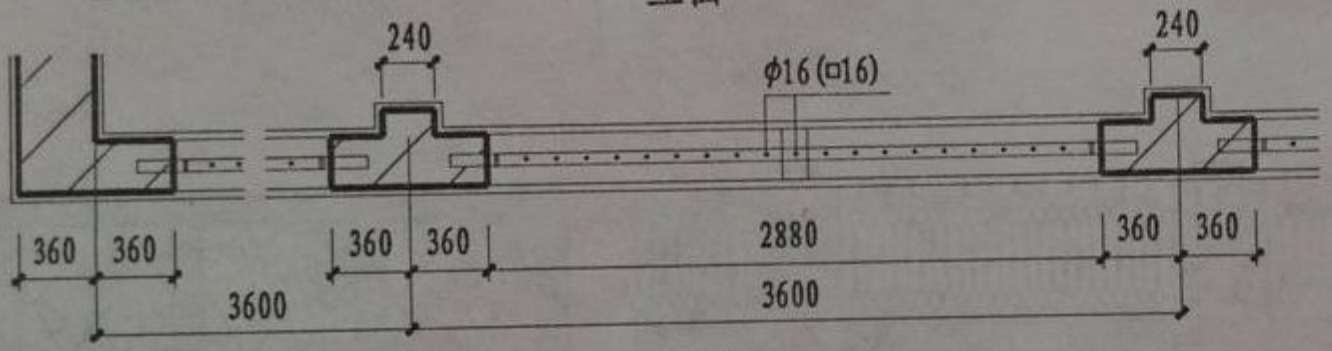
注：1. 围墙材料可为非黏土实心砖、空心砖；围墙高度≤2400，饰面做法由设计人定。
2. 围墙伸缩缝间距及位置按工程设计，伸缩缝做法见第3页。
3. 流水洞均为每开间留一个，洞内壁抹20厚1:2水泥砂浆掺5%防水粉。
4. 防潮层在流水洞处闭合，防潮层做法为20厚1:2水泥砂浆掺5%防水粉。
5. 图中基础埋深H＞冰冻线深度。
6. 围墙勒脚饰面材料由设计人定，做法参见12J9-1。
7. 所有露明铁件均刷防锈漆一道，调合漆两道，颜色由设计人定。
8. 图中两个剖面基础部分不同，分别表示围墙的两种基础做法供选择。

砖垛铁栅围墙选用表	图集号	12J9-1
	页次	18

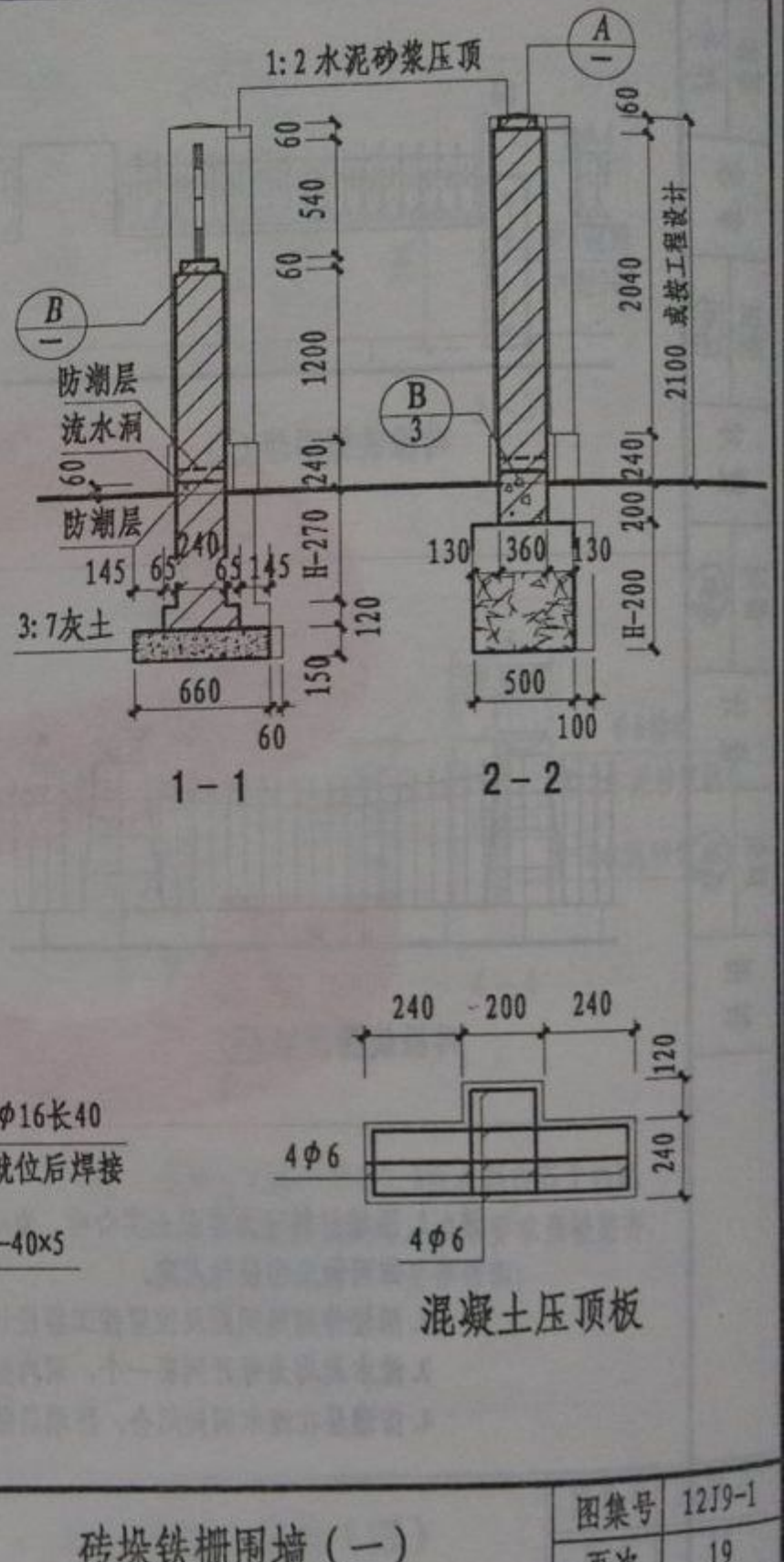


① 砖基础 ② 毛石基础

立面

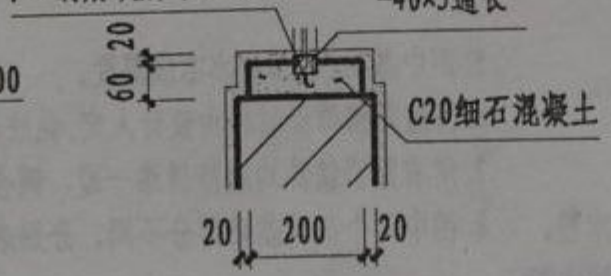


平面

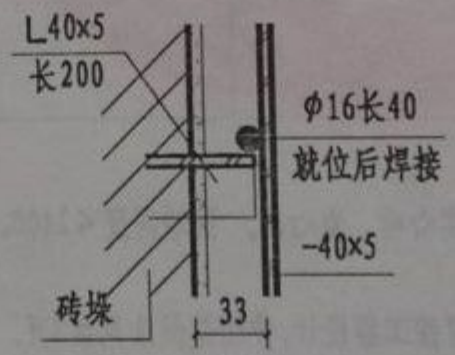




A



B



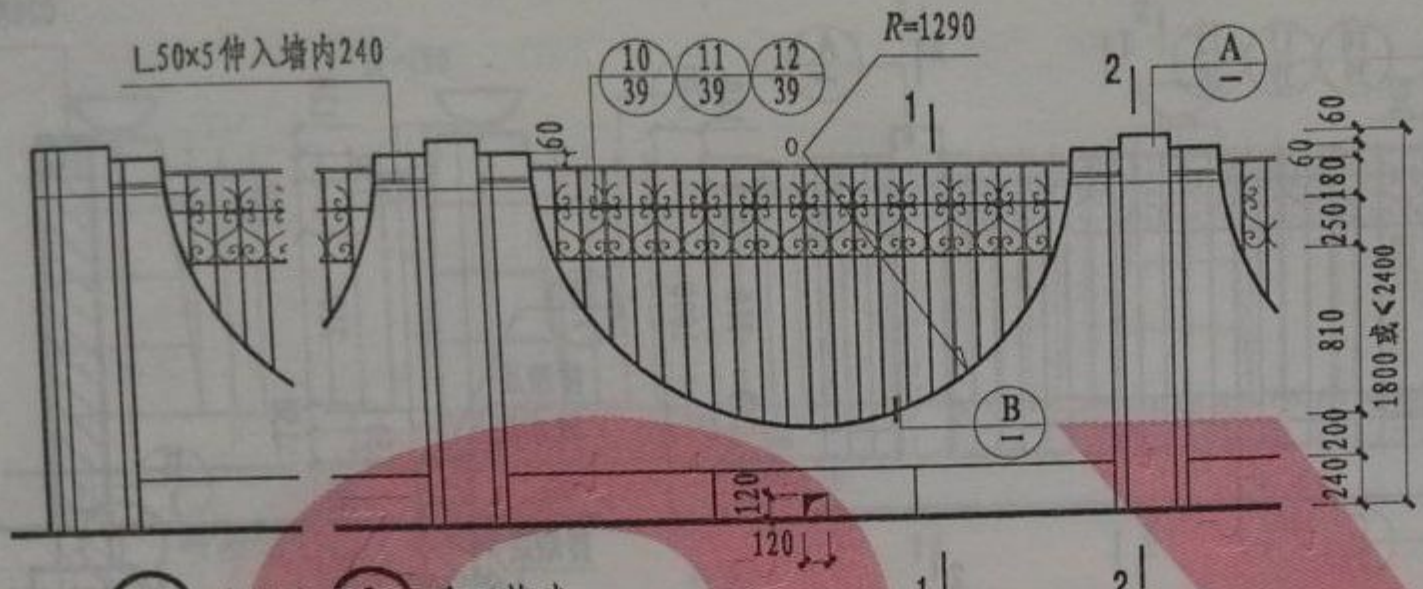
C

混凝土压顶板

砖垛铁栅围墙（一）

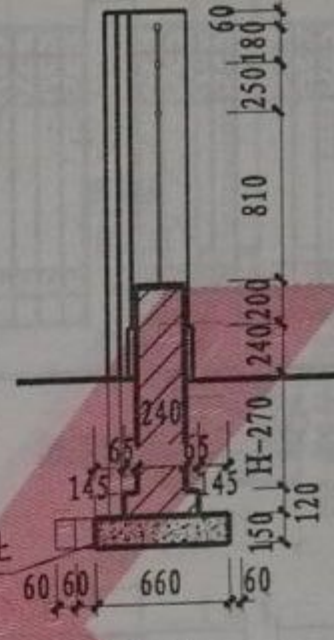
图集号	12J9-1
页次	19

审定	郭彦	郭彦
审核		
张恒	张恒	
校对		
薛剑	薛剑	
设计		
薛剑	薛剑	
制图		

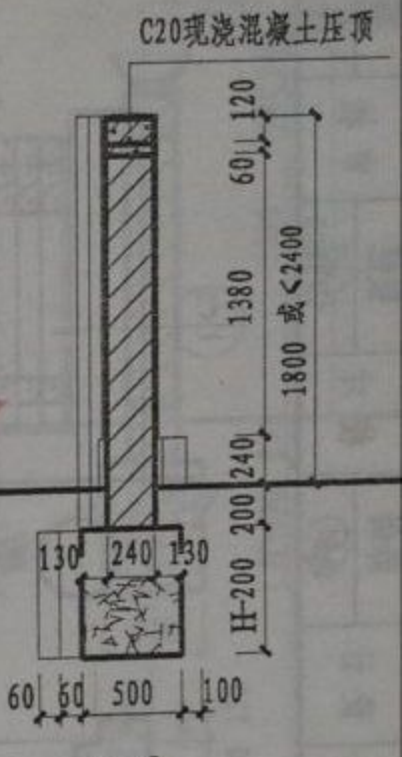


① 砖基础 ② 毛石基础

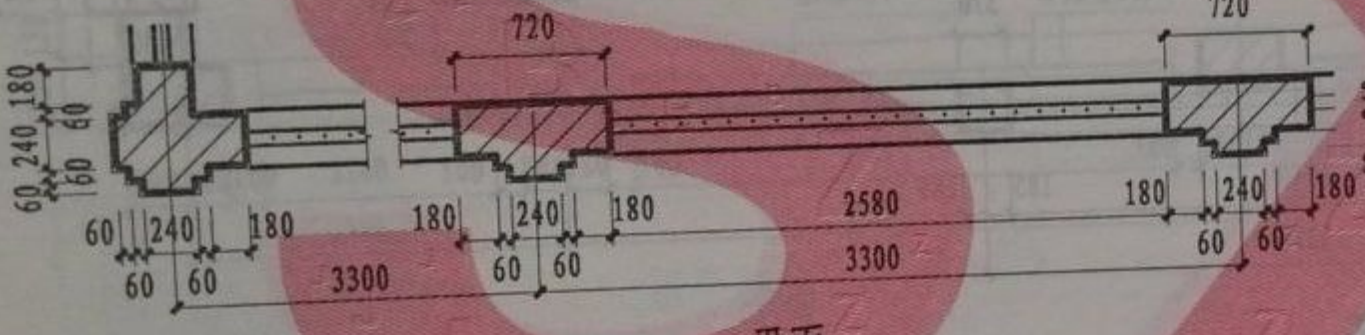
立面



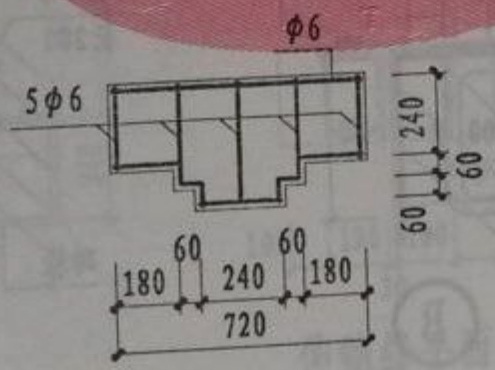
1-1



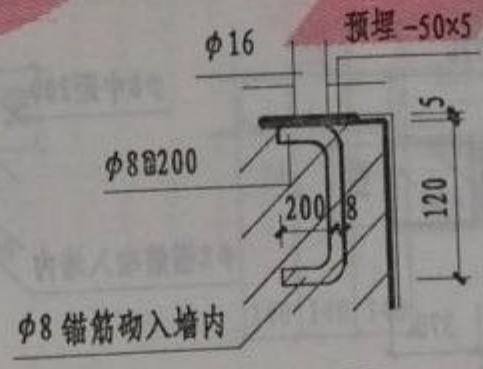
2-2



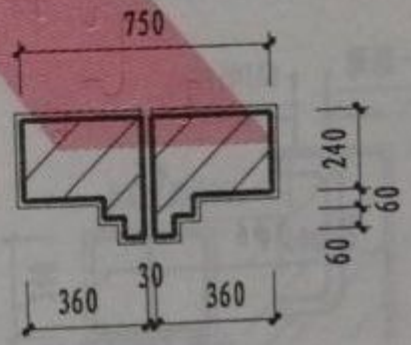
平面



A

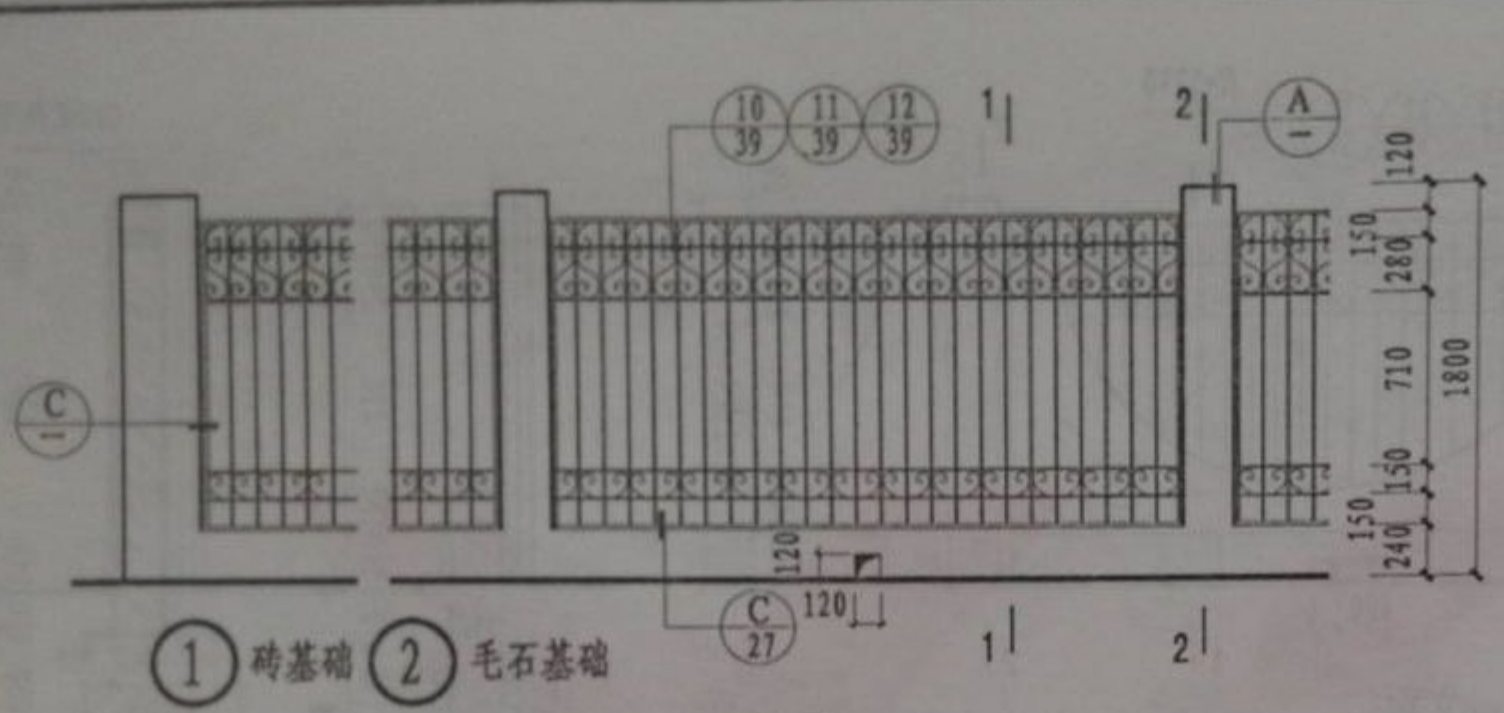


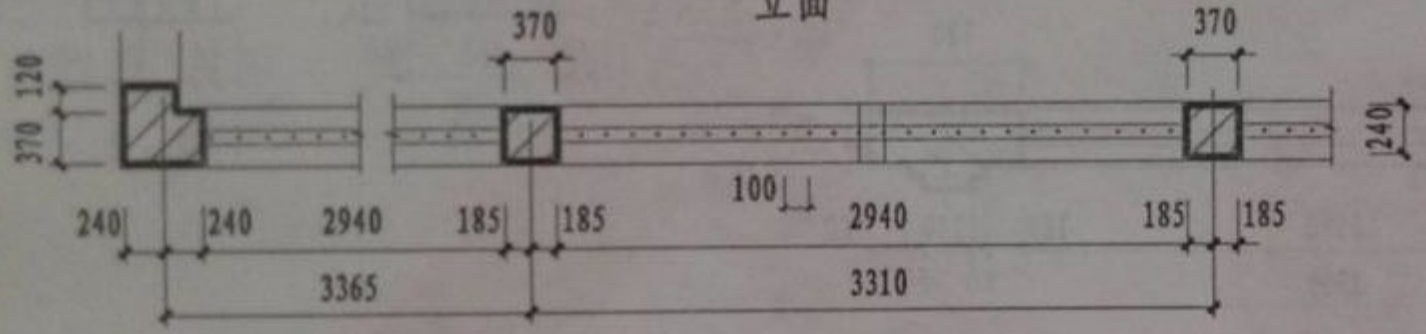
B



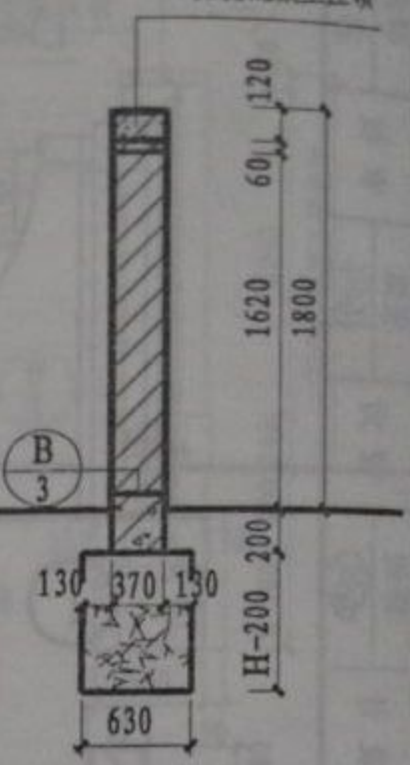
伸缩缝平面

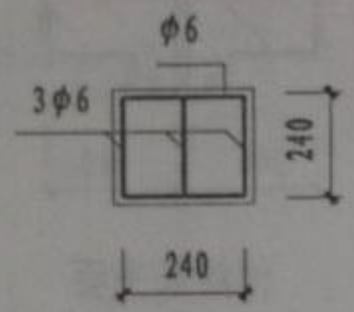
砖垛铁栅围墙（二）	图集号	12J9-1
	页次	20

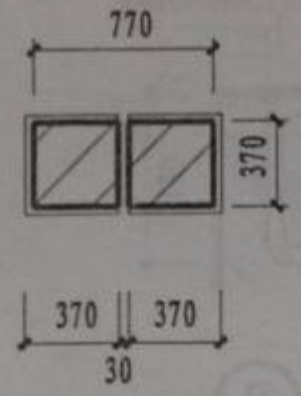


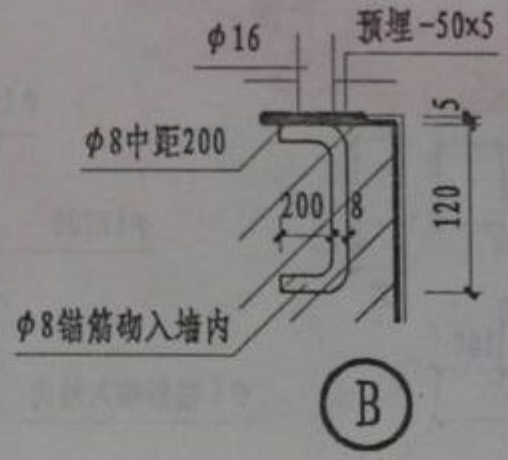


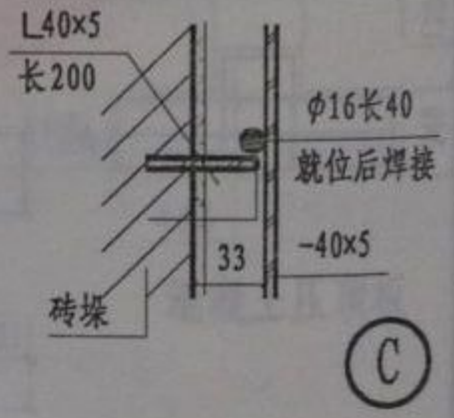






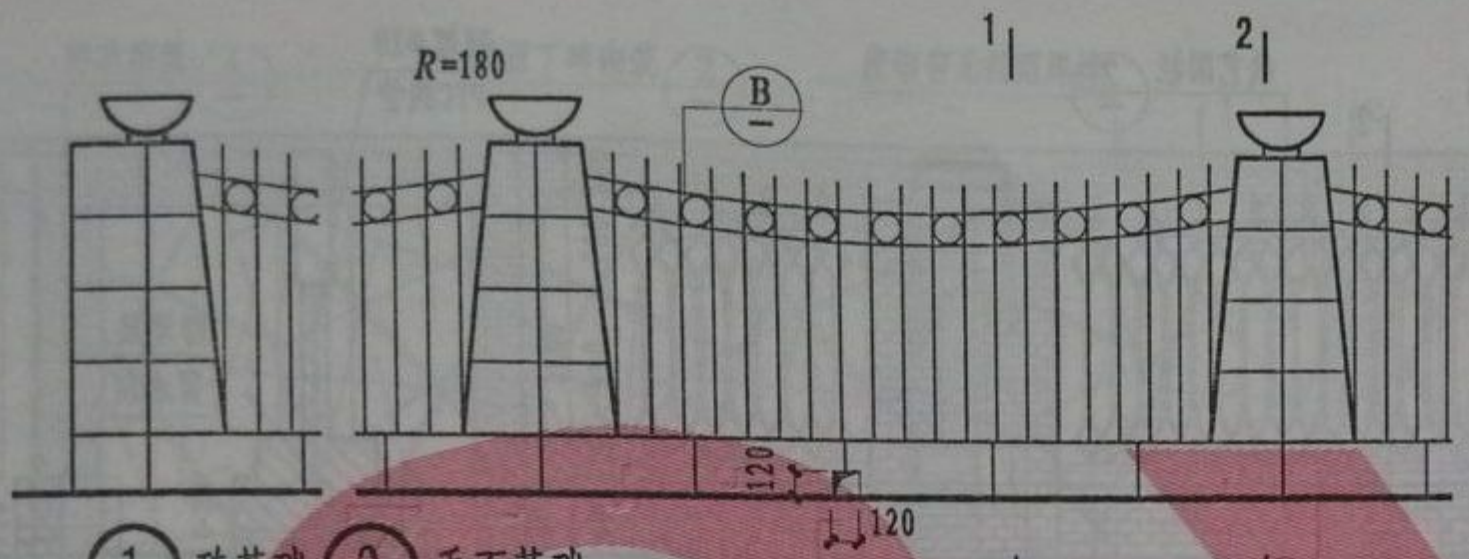






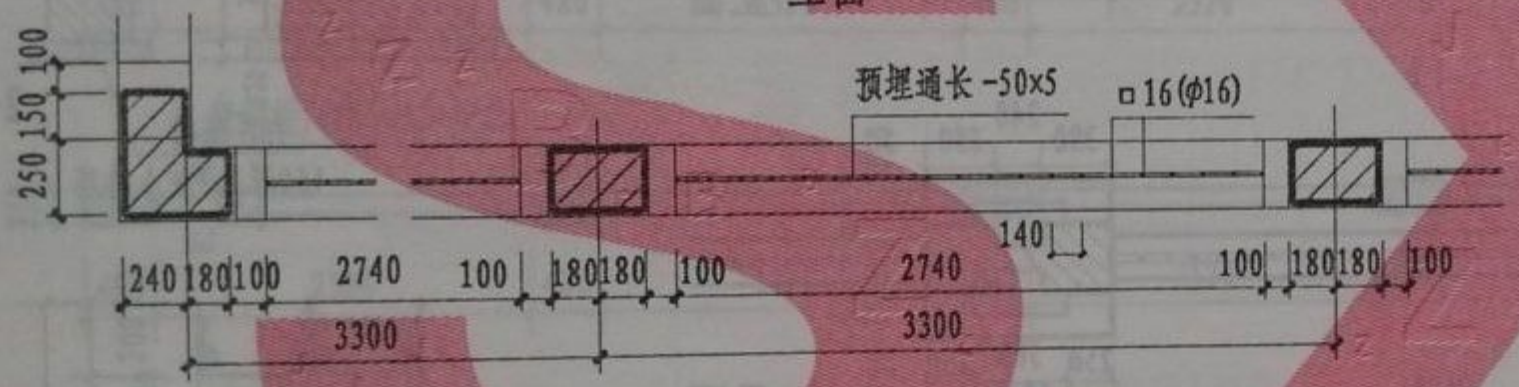
砖垛铁栅围墙（三）

图集号	12J9-1
页次	21

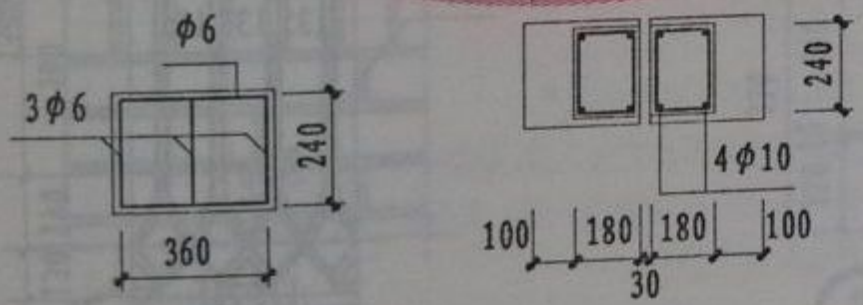


① 砖基础 ② 毛石基础

立面

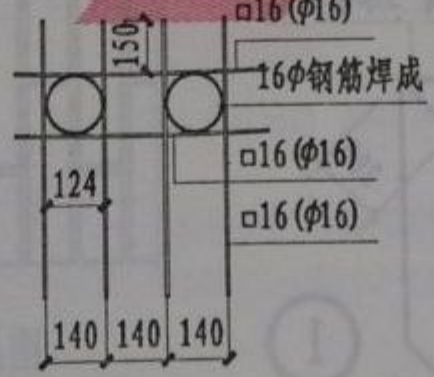


平面

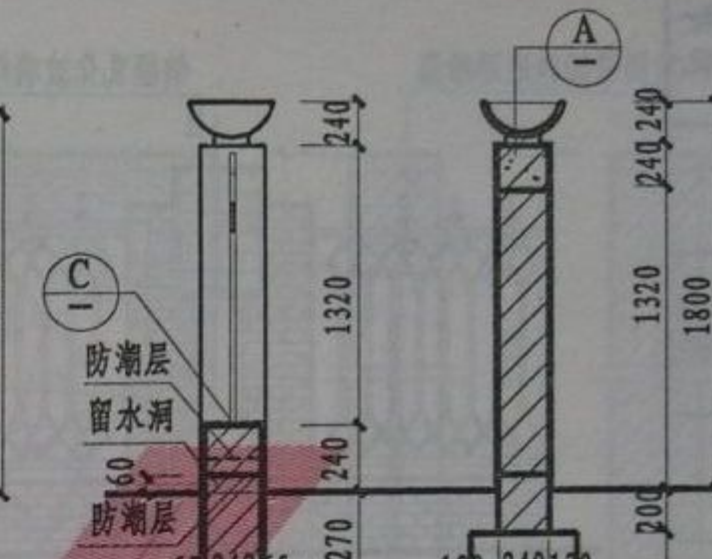


伸缩缝平面

A

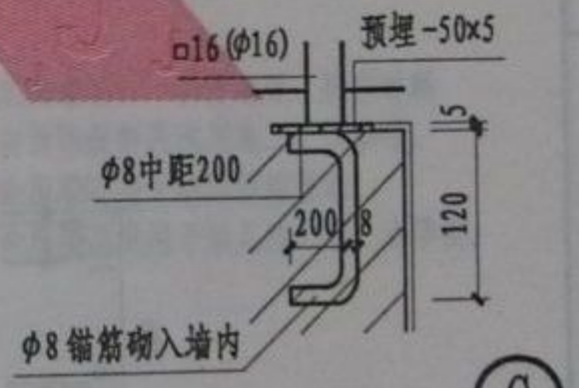


B



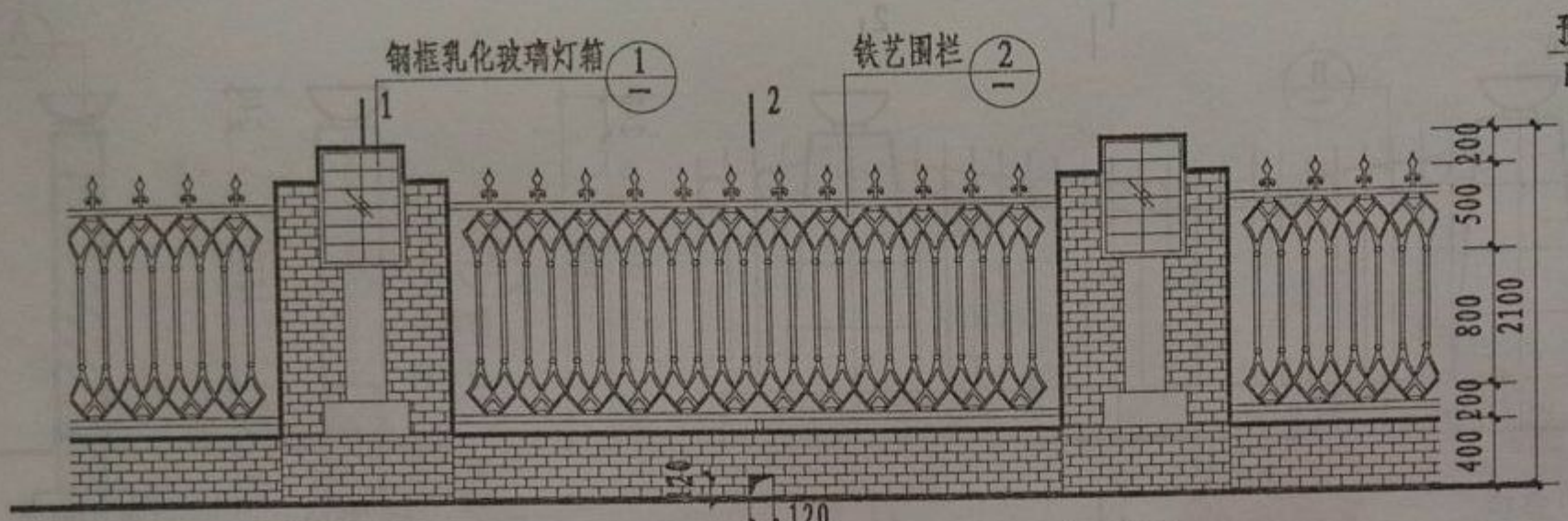
1-1

2-2

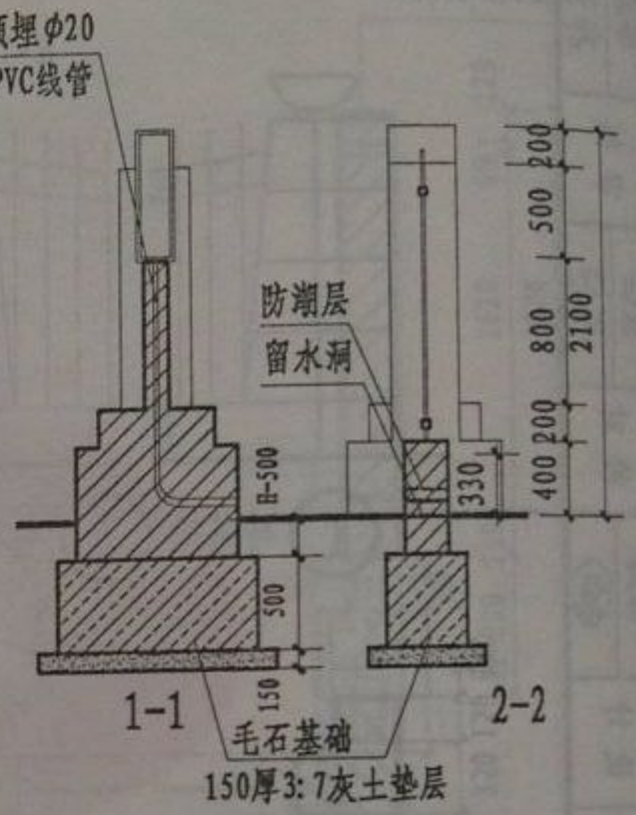


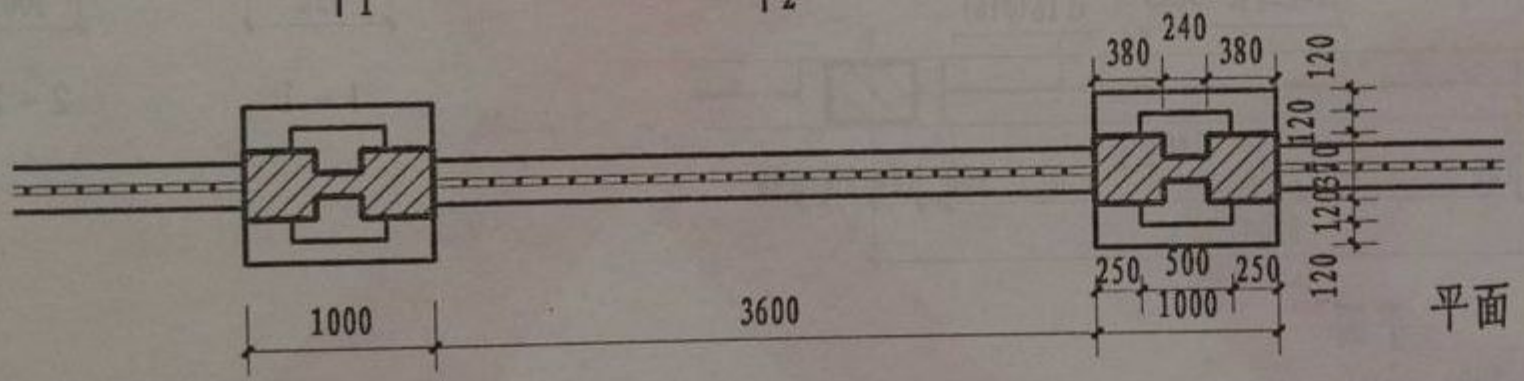
C

砖垛铁栅围墙（四）	图集号	12J9-1
	页次	22

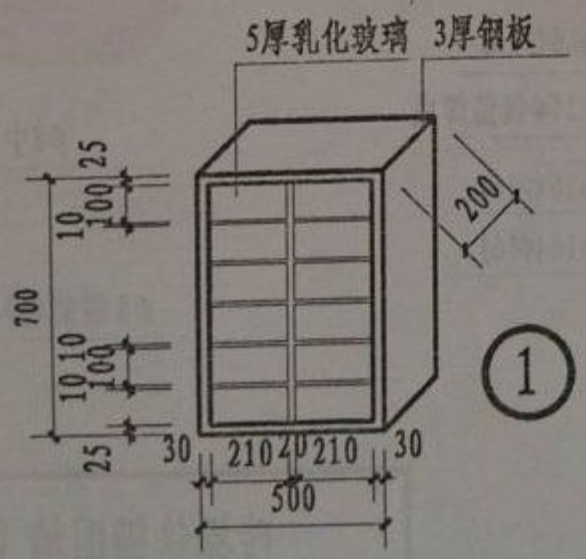


立面

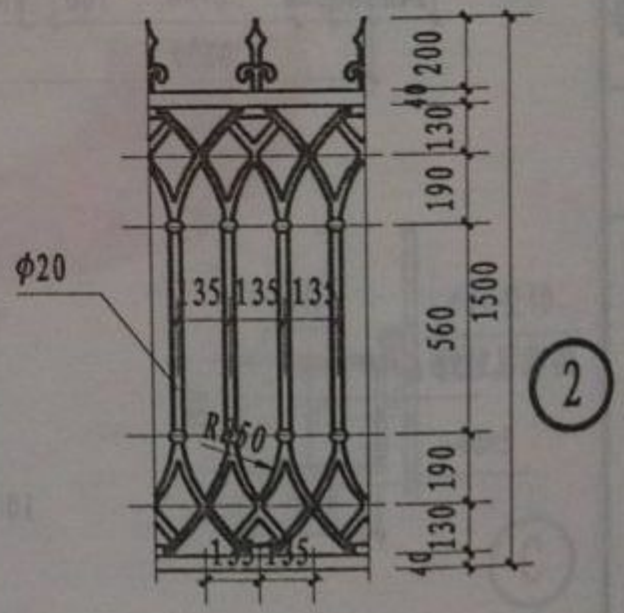




平面

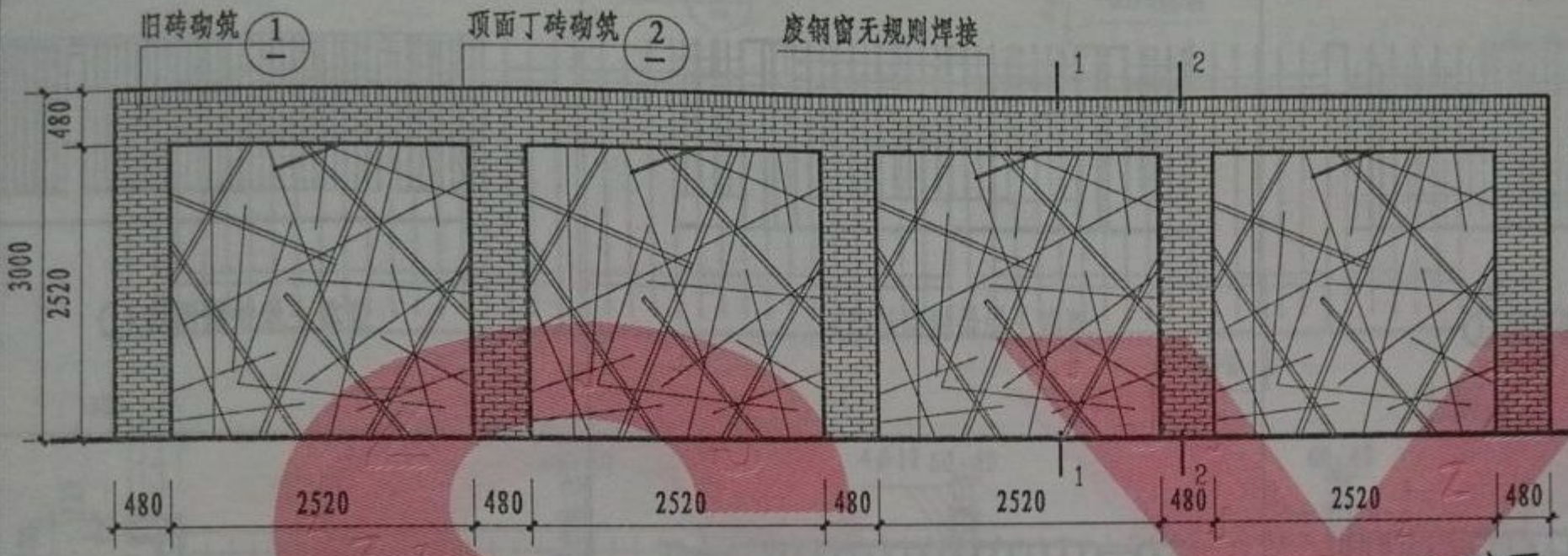


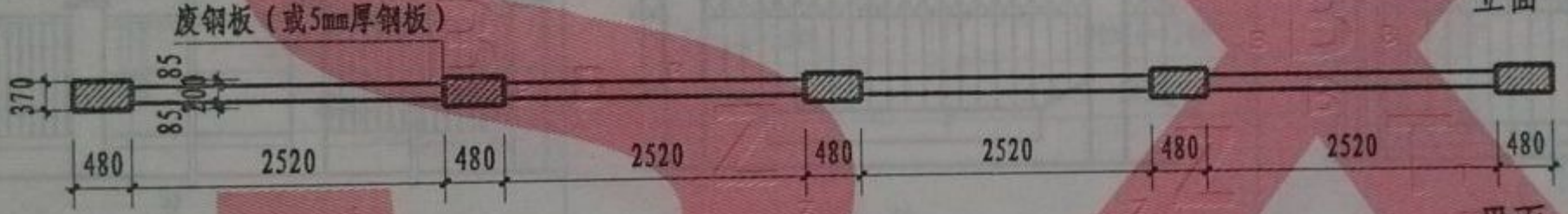
①

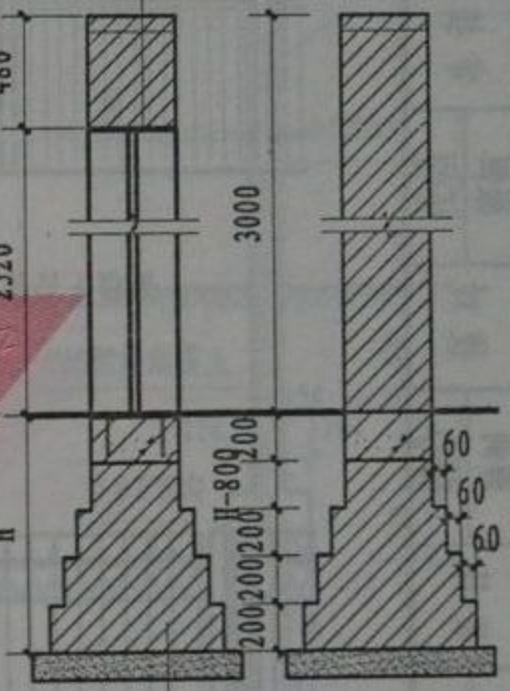


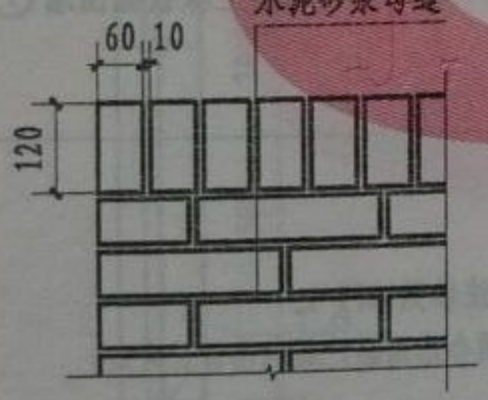
②

砖垛铁栅围墙（五）	图集号	12J9-1
	页次	23

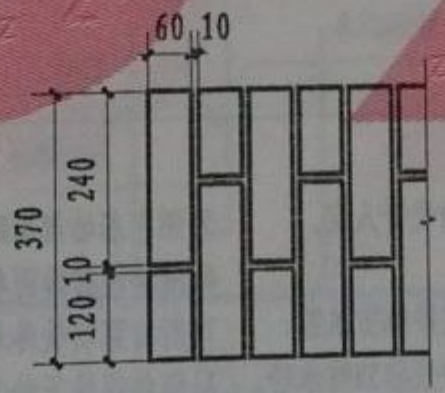








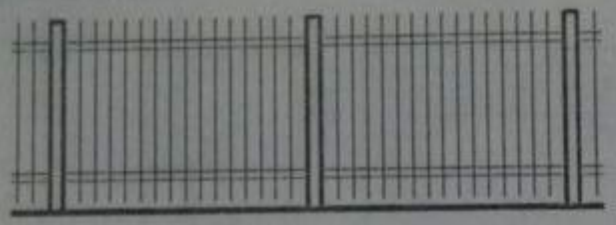
① 立面图



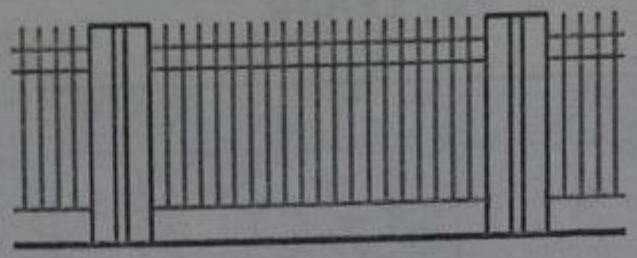
② 顶视图

注：1. 此围墙选自一改造项目，所有材料由拆除废料再利用施工，供参考。
2. 此围墙适用于局部景观装饰。
3. 此围墙不适用于幼儿园、中、小学校。

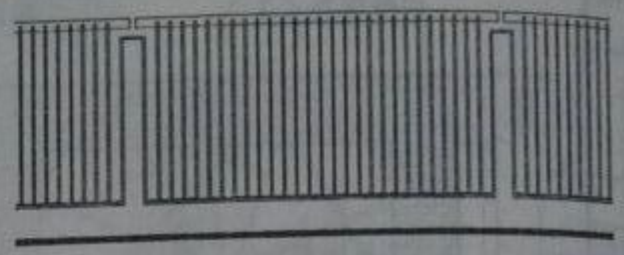
砖垛铁栅围墙（六）	图集号	12J9-1
	页次	24



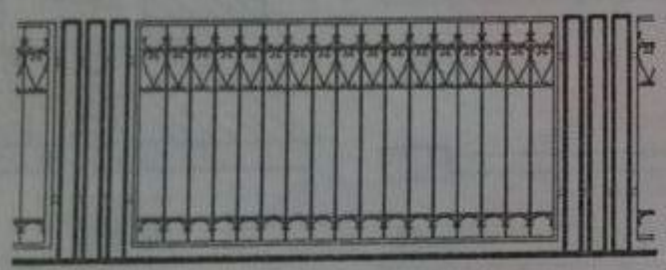
混凝土垛铁栅围墙①



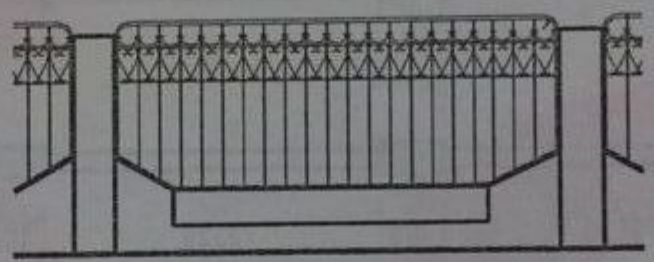
混凝土垛铁栅围墙②



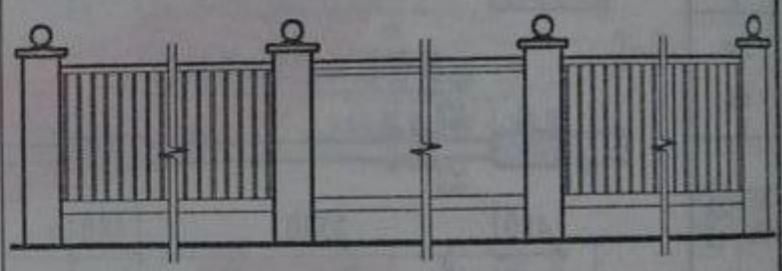
混凝土垛铁栅围墙③



混凝土垛铁栅围墙④



混凝土垛铁栅围墙⑤

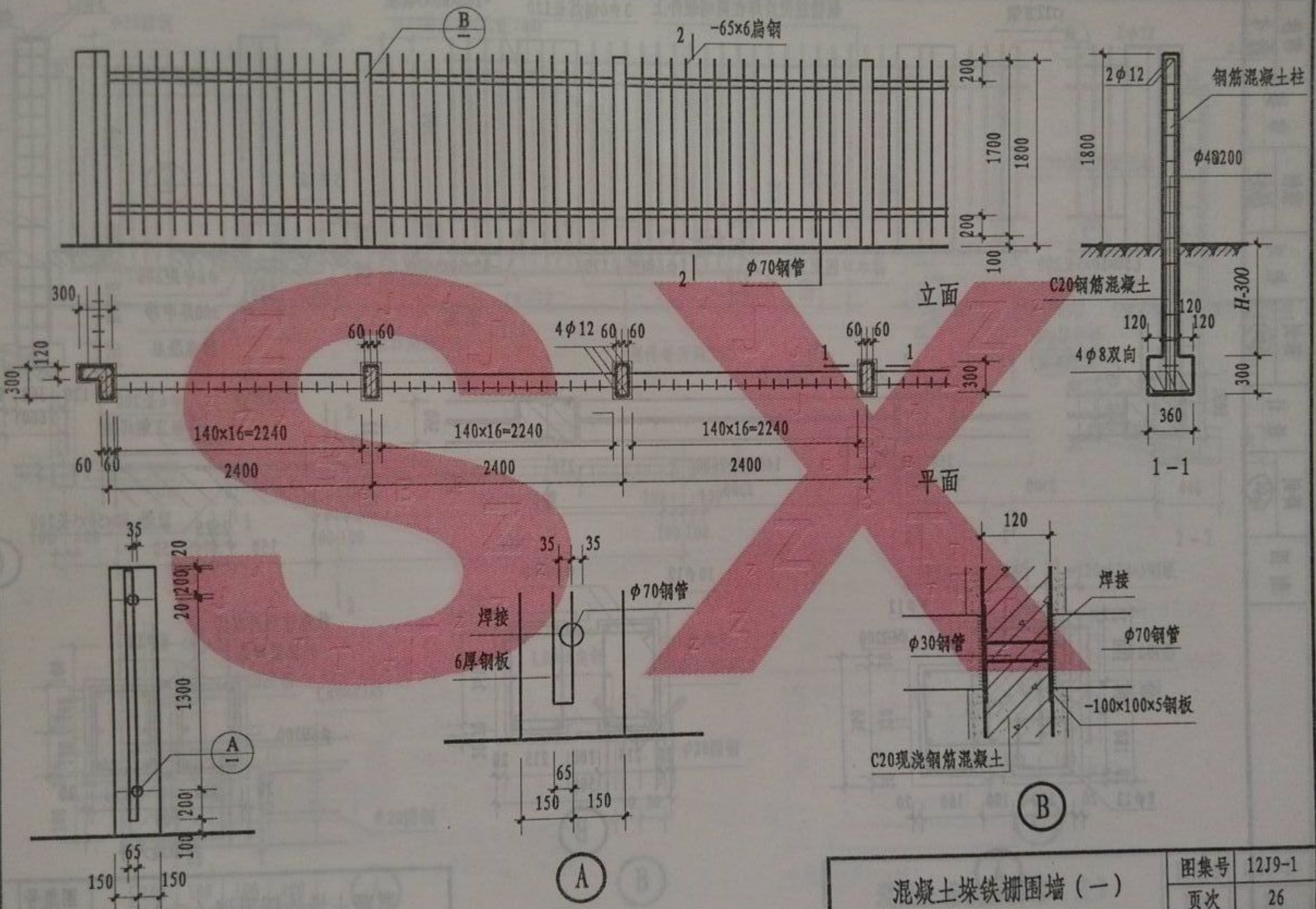


混凝土垛铁栅围墙⑤

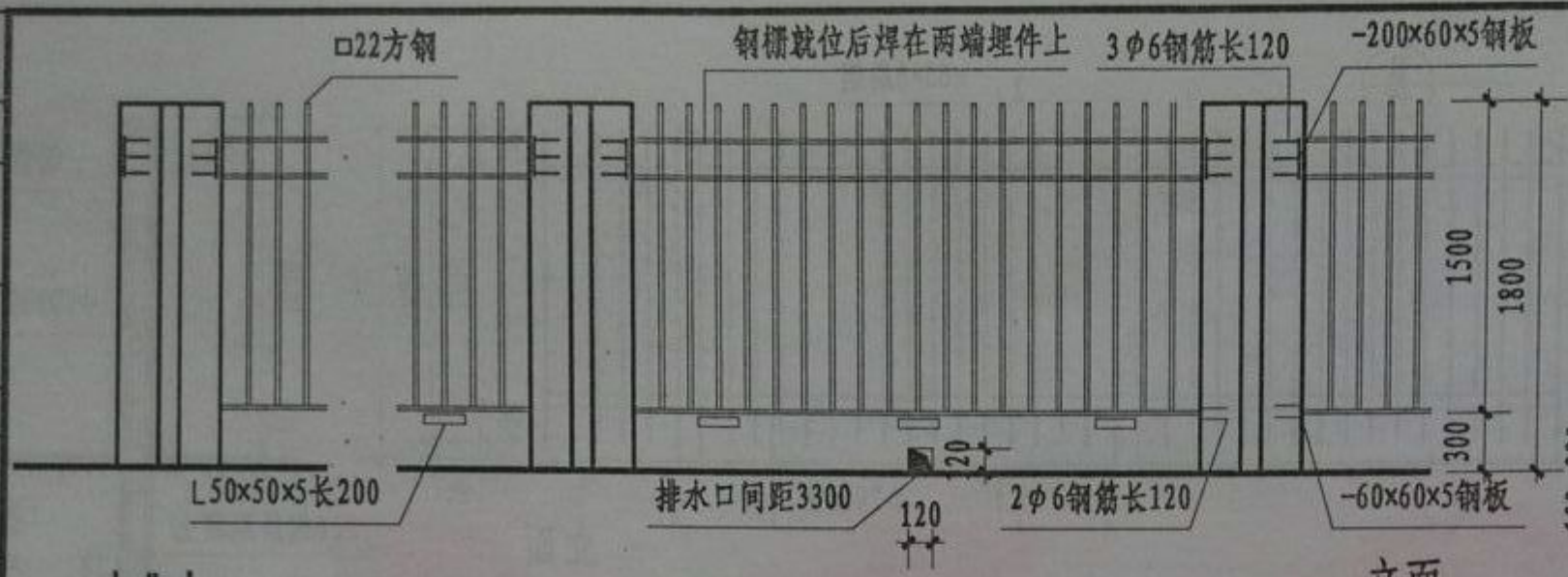
注：1. 围墙材料为C20混凝土，围墙高度≤2400；饰面做法由设计人定，伸缩缝详27页。
2. 流水洞均为每开间留一个，洞内壁抹20厚1:2水泥砂浆掺5%防水粉。
3. 防潮层在流水洞处闭合，防潮层做法为20厚1:2水泥砂浆掺5%防水粉。
5. 图中基础埋深H≥冰冻线深度。
6. 围墙勒脚饰面材料由设计人定，做法参见12J9-1。
7. 所有露明铁件均刷防锈漆一道，调合漆两道，颜色由设计人定。
8. 钢件焊缝须锉平磨光。

混凝土垛铁栅围墙选用表

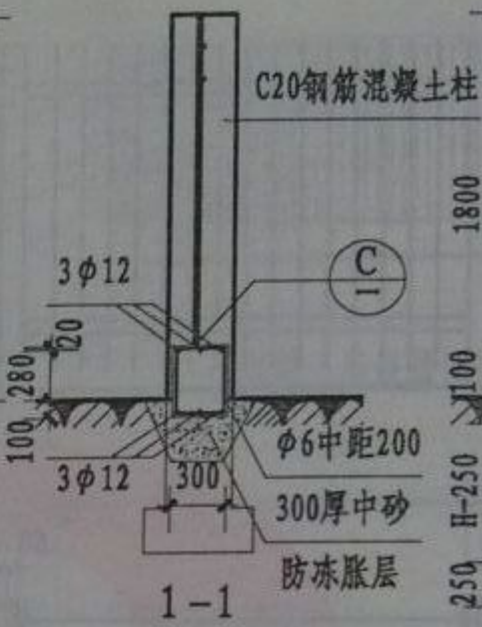
图集号	12J9-1
页次	25



混凝土垛铁栅围墙（一）	图集号	12J9-1
	页次	26

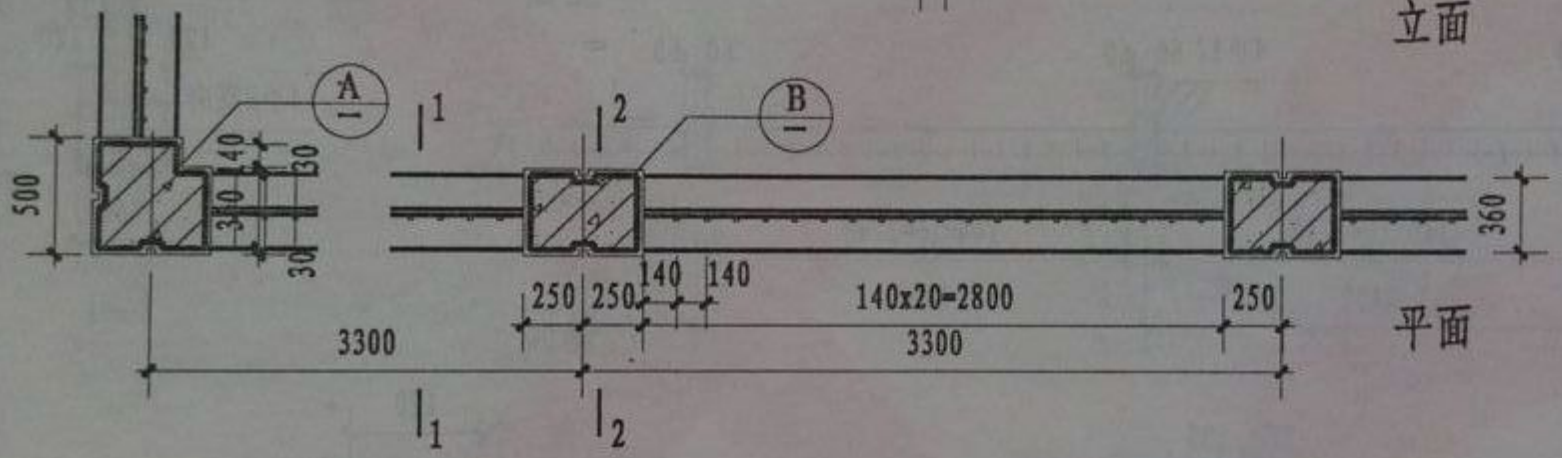


立面

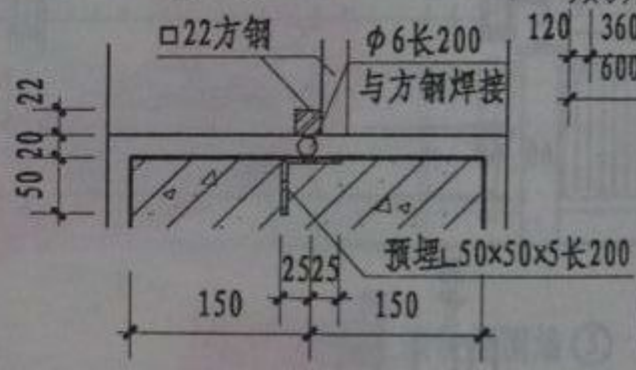


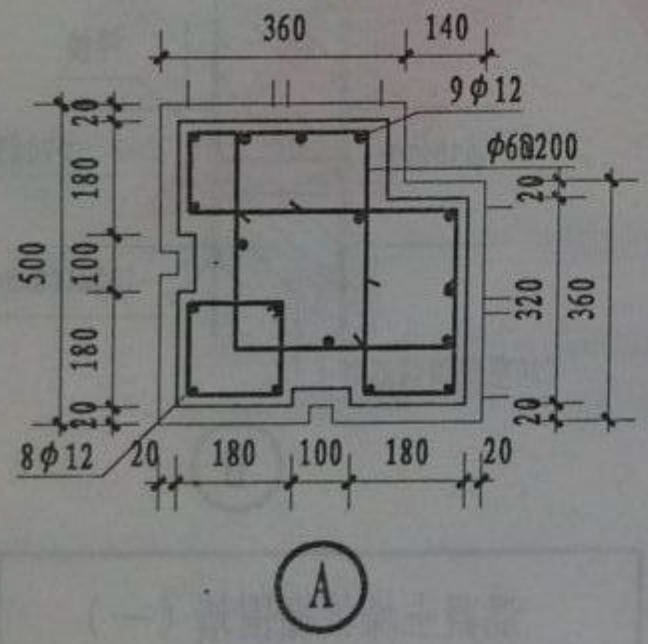
1-1

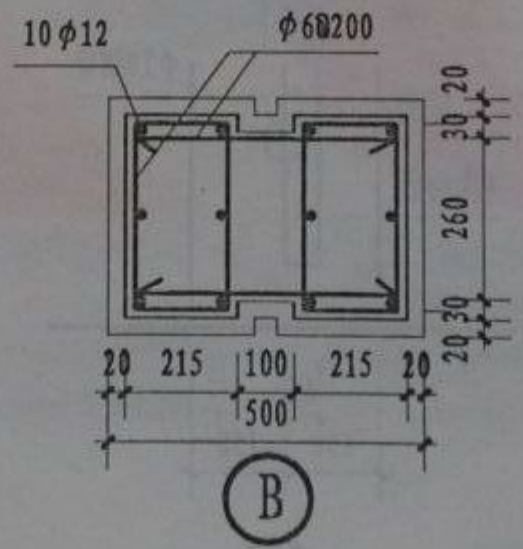


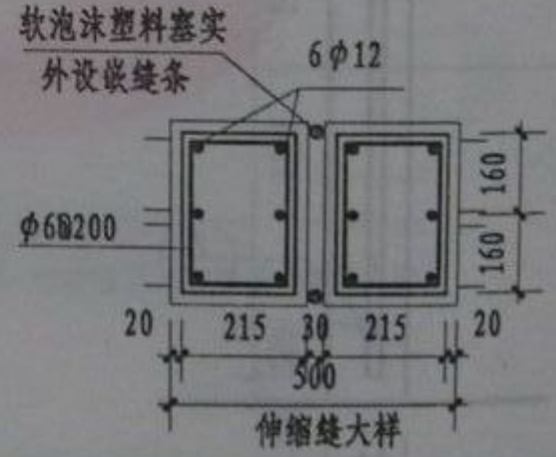


平面

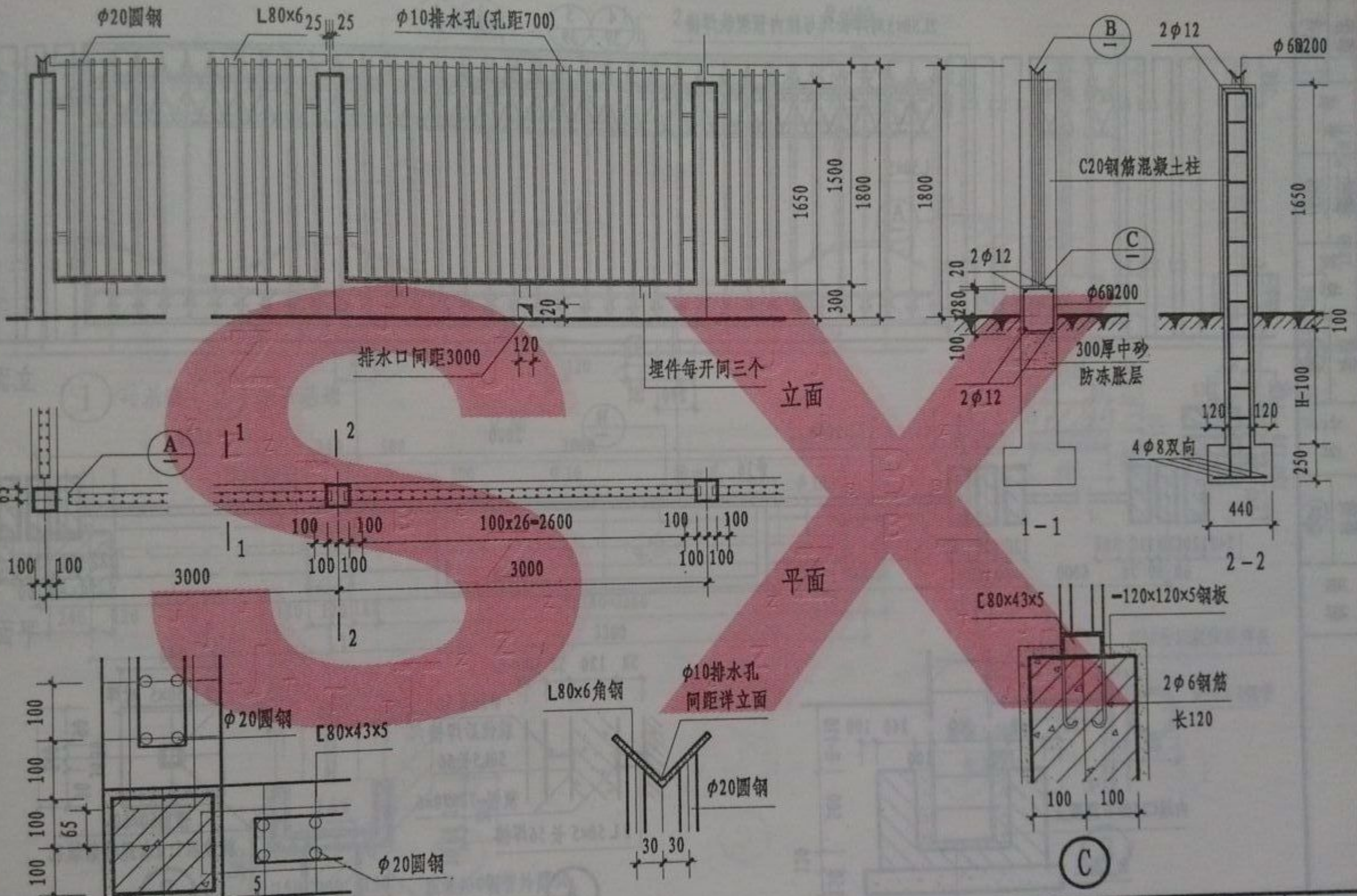




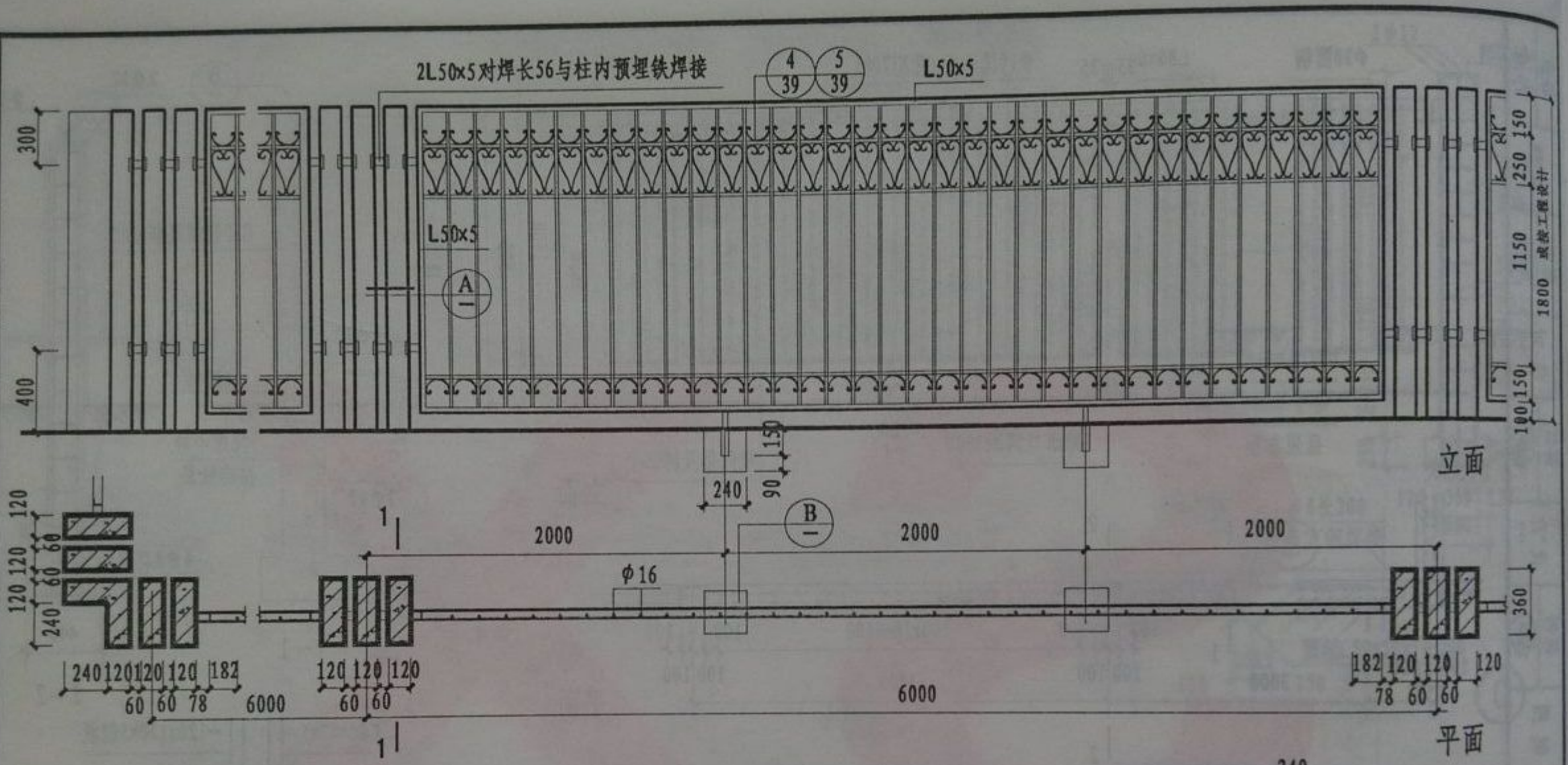


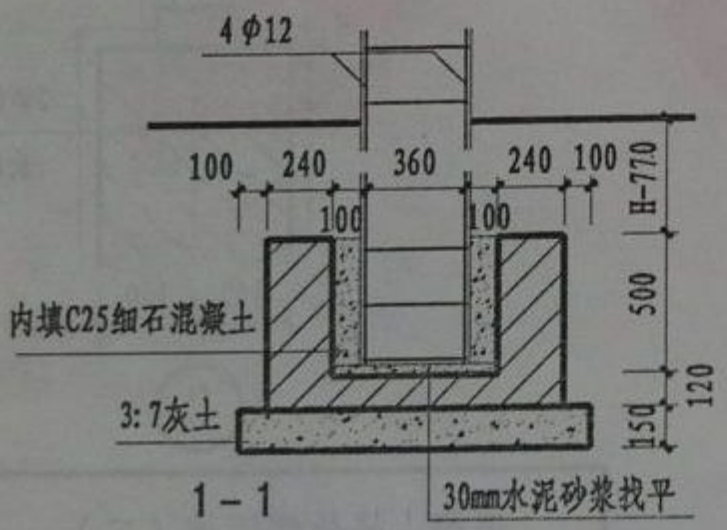


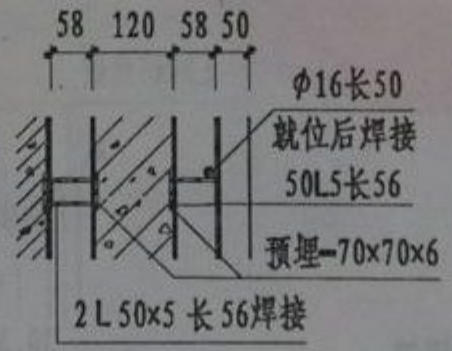
混凝土垛铁栅围墙（二）	图集号	12J9-1
	页次	27

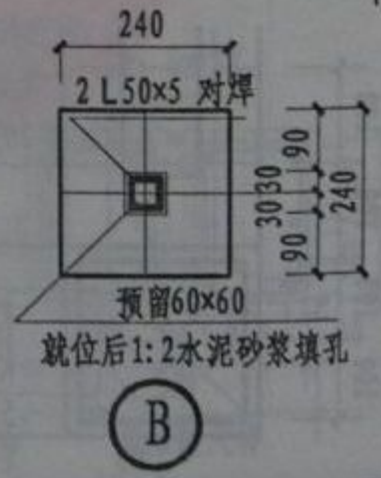


混凝土垛铁栅围墙（三）	图集号	12J9-1
	页次	28



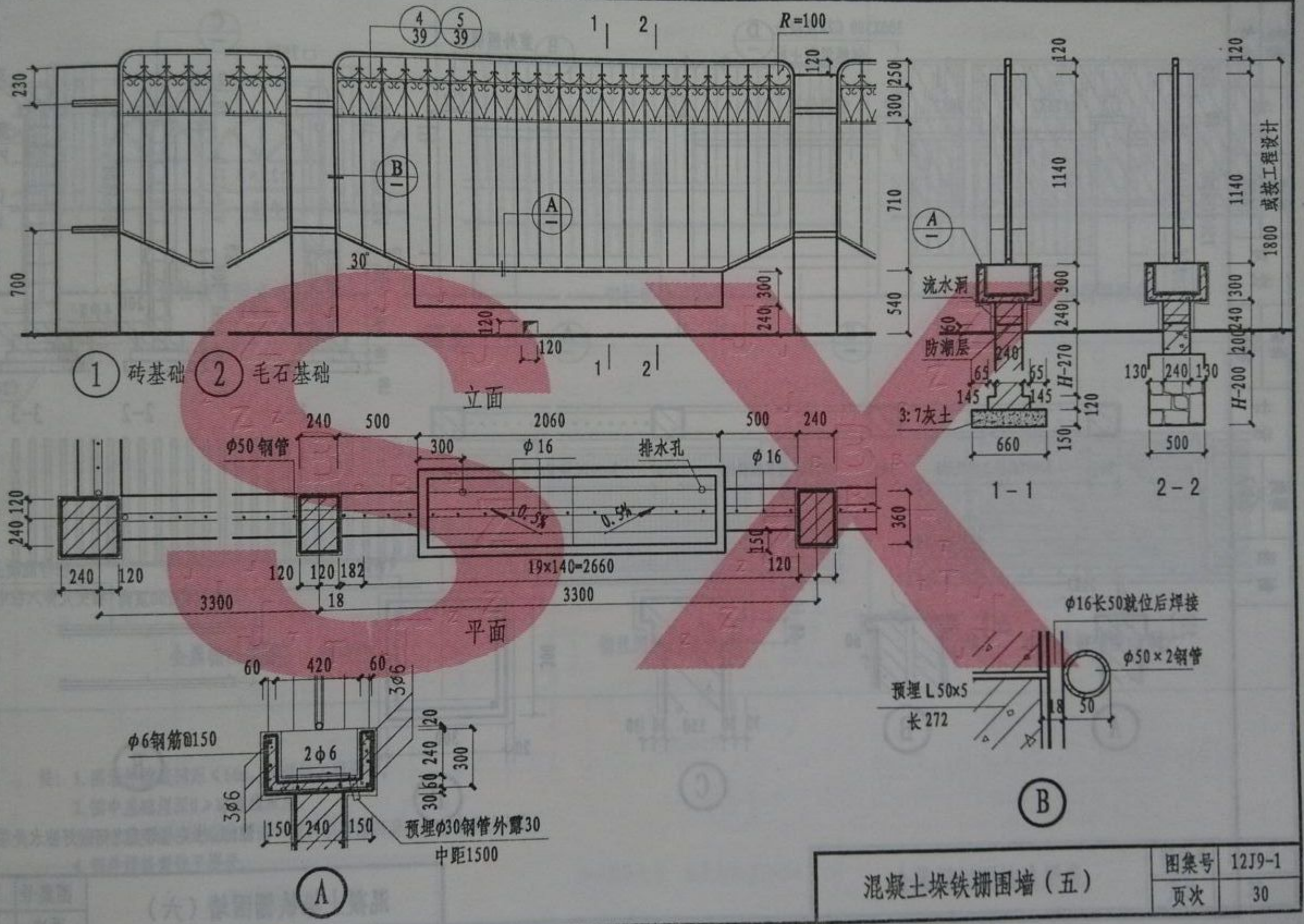




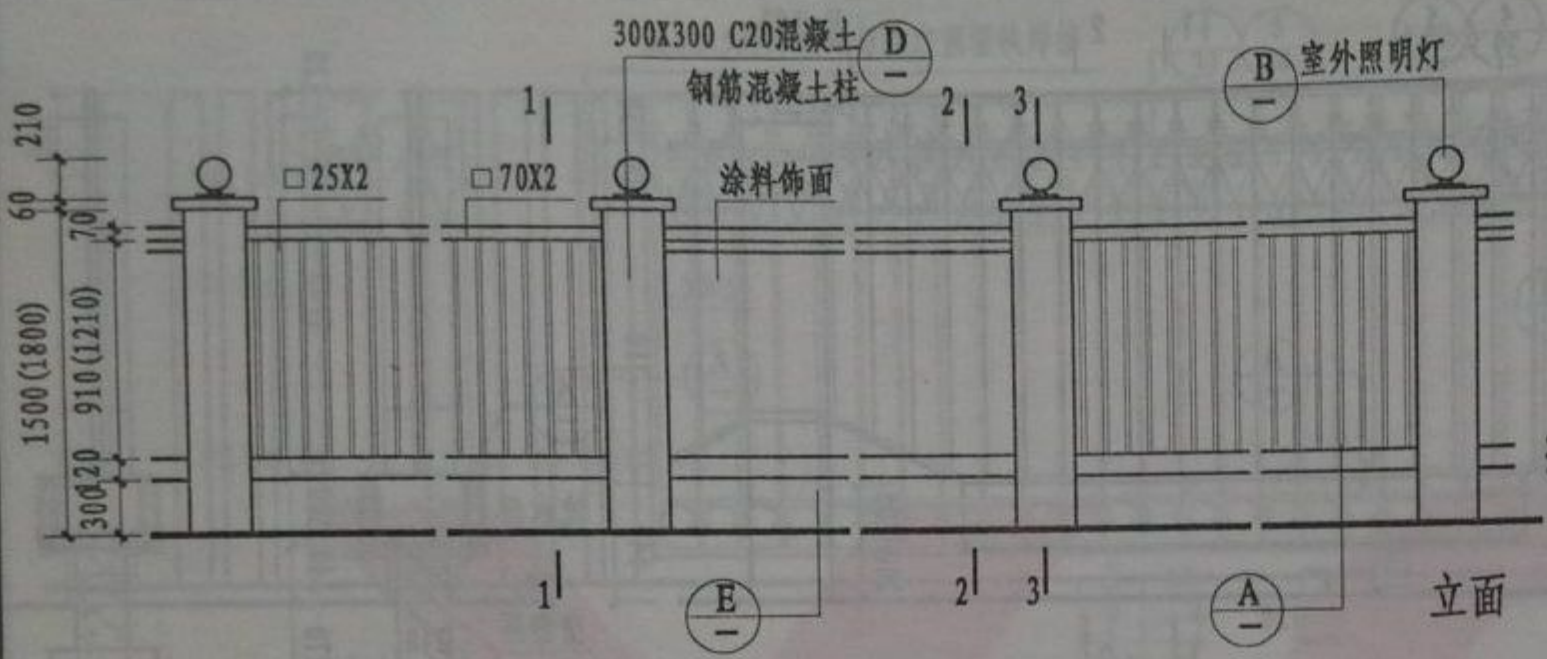


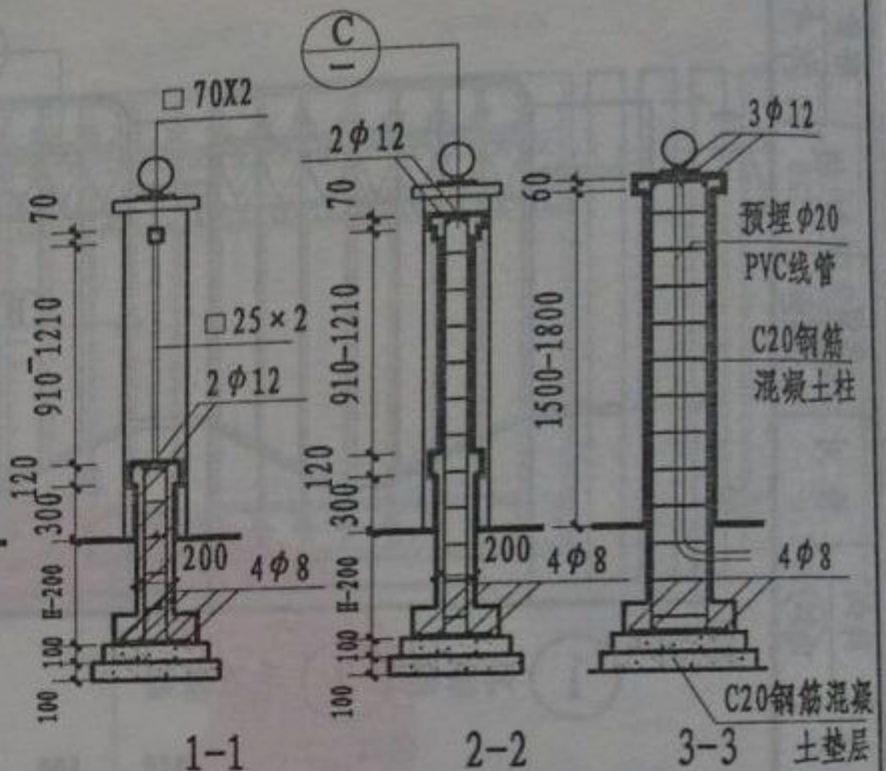
混凝土垛铁栅围墙（四）

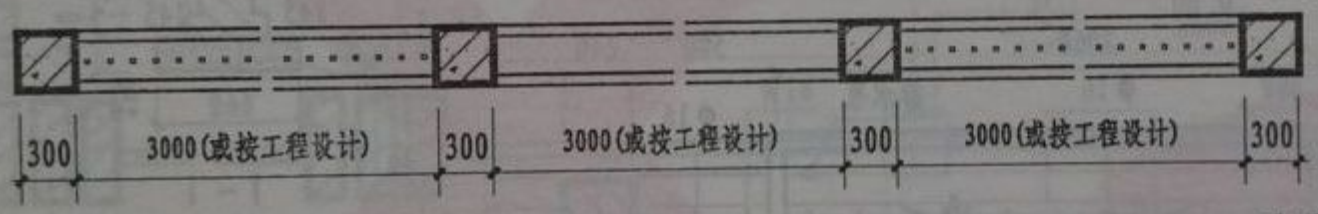
图集号	12J9-1
页次	29



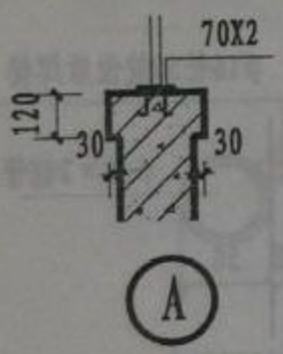
混凝土垛铁栅围墙（五）	图集号	12J9-1
	页次	30



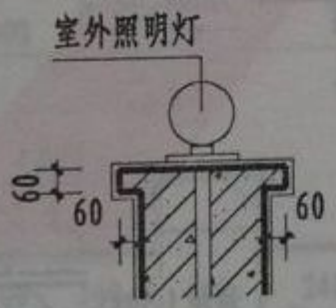




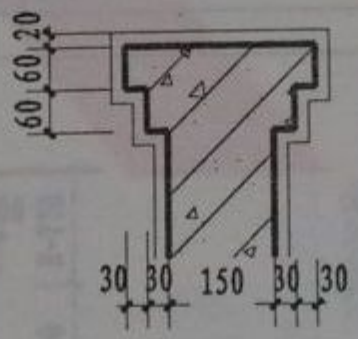
平面



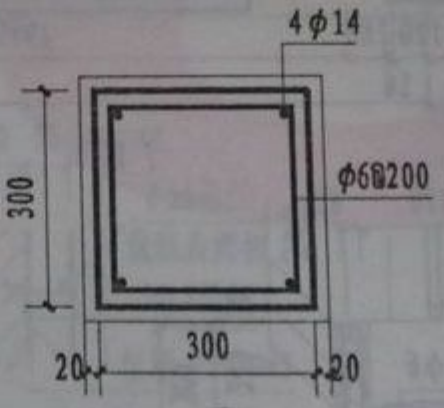
A



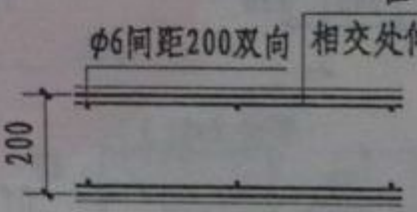
B



C



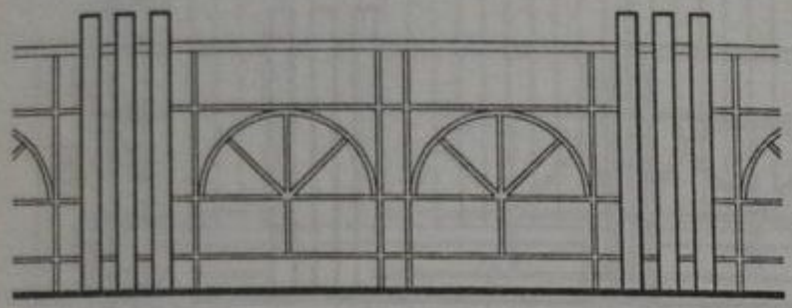
D



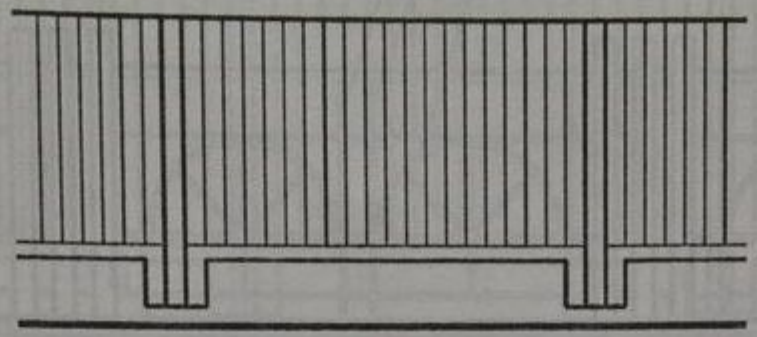
E

注: 1. 柱头与灯头之间做好防水处理.

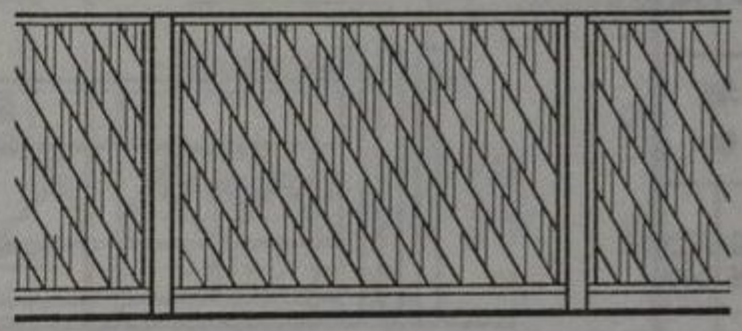
混凝土垛铁栅围墙（六）	图集号	12J9-1
	页次	31



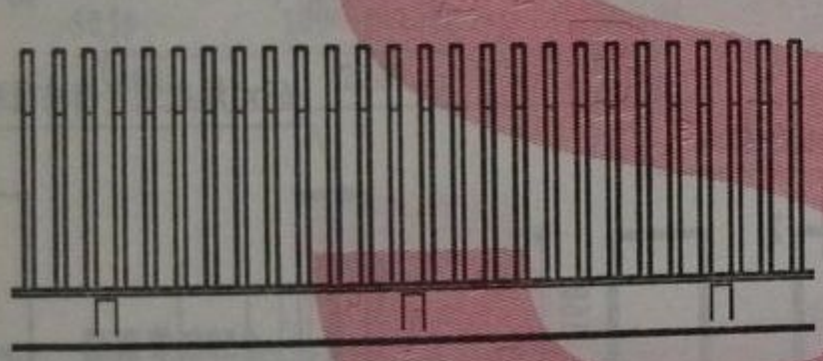
钢柱铁栅围墙 ①



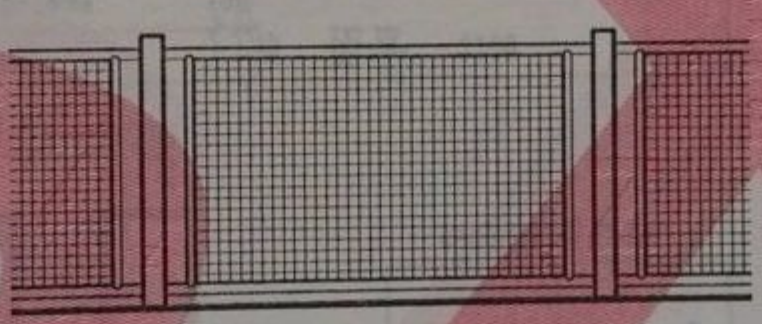
钢柱铁栅围墙 ②



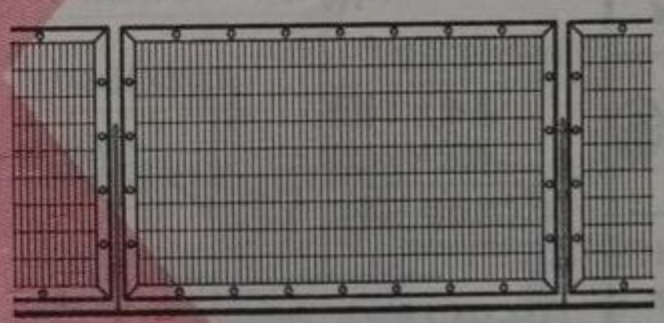
钢柱铁栅围墙 ③



金属栅围墙 ④



钢丝网铁栅围墙 ⑤



钢丝网铁栅围墙 ⑥

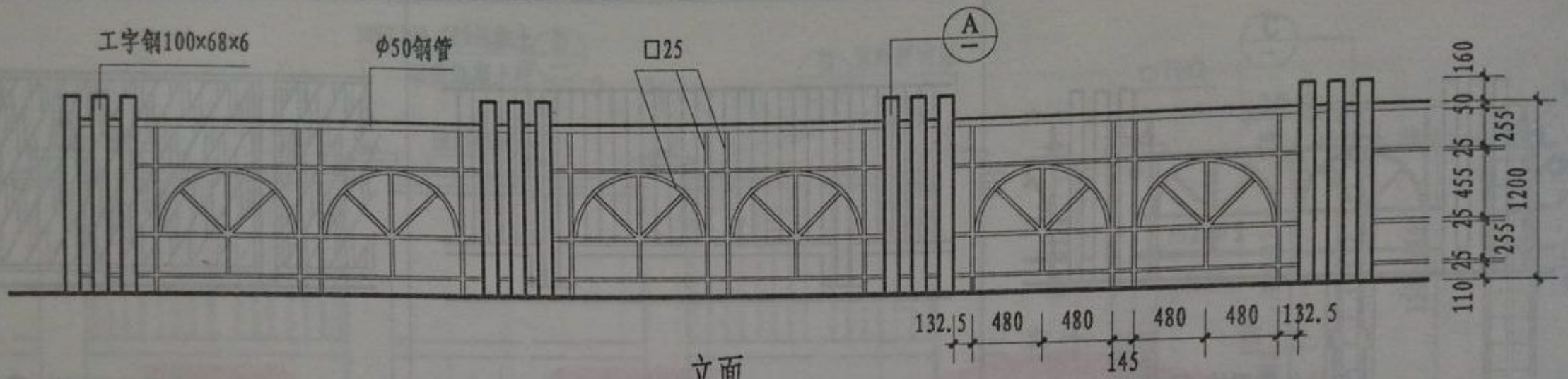
注：1. 围墙伸缩缝间距＜60m，位置按工程设计。

2. 图中基础埋深H＞冰冻线深度。

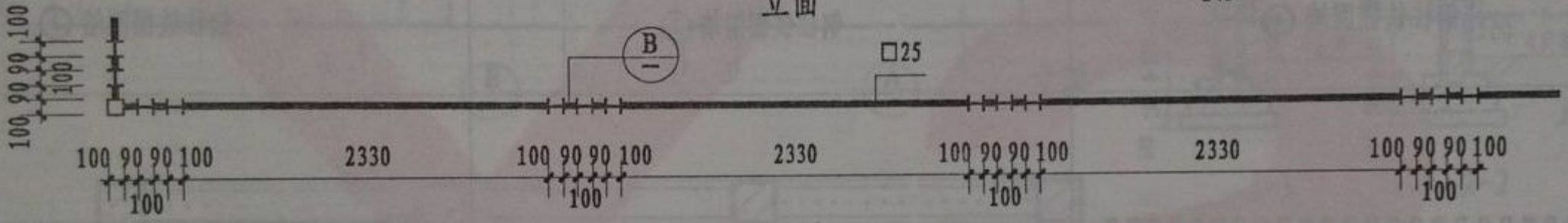
3. 所有露明铁件均刷防锈漆一道，调合漆两道，颜色由设计人定。

4. 钢件焊缝须锉平磨光。

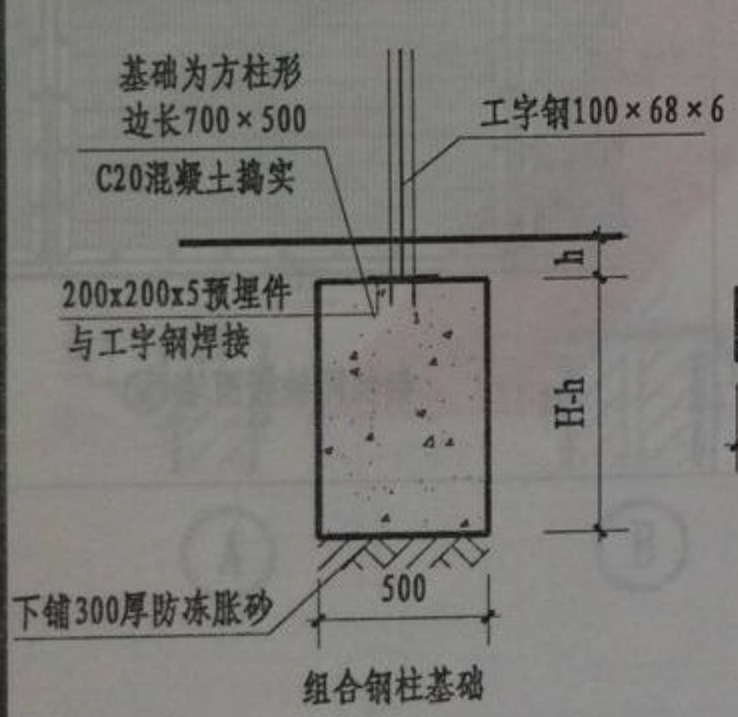
金属栅栏围墙选用表	图集号	12J9-1
	页次	32

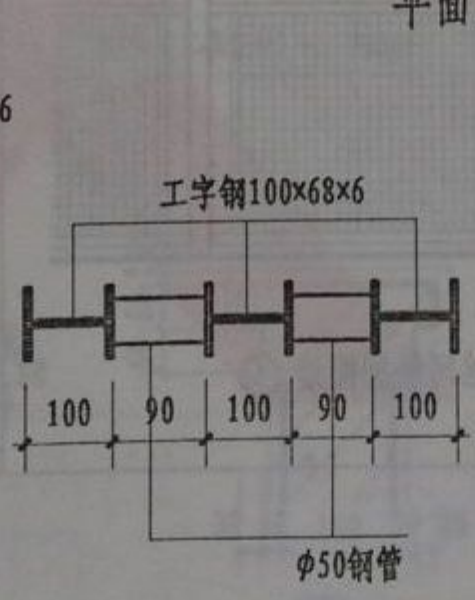


立面

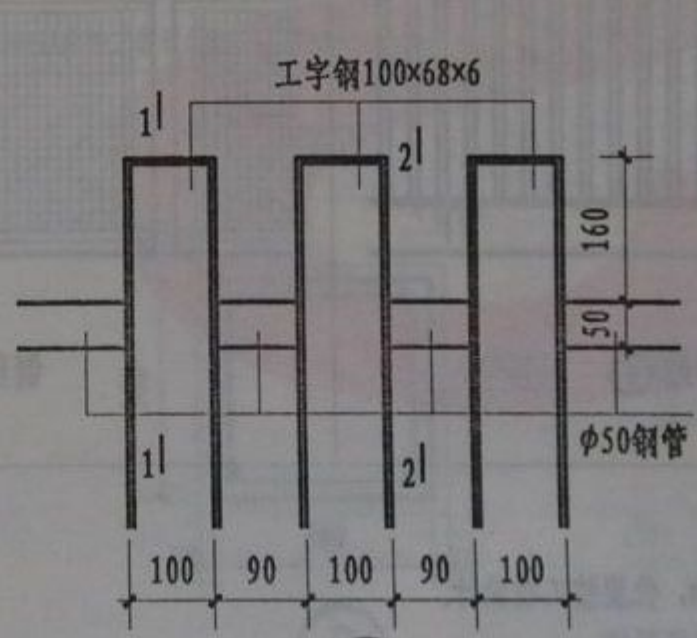


平面

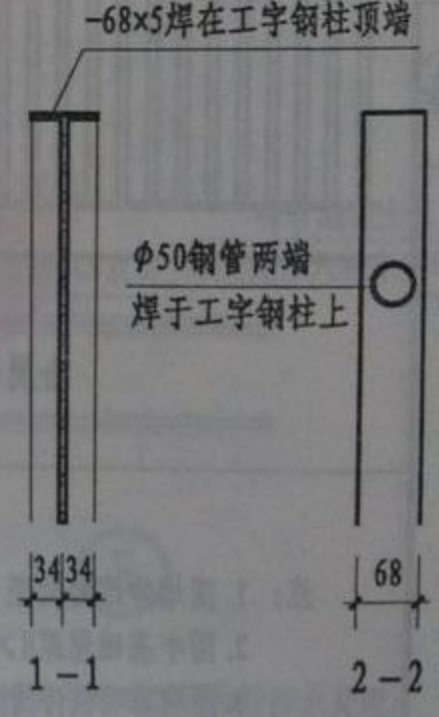




B

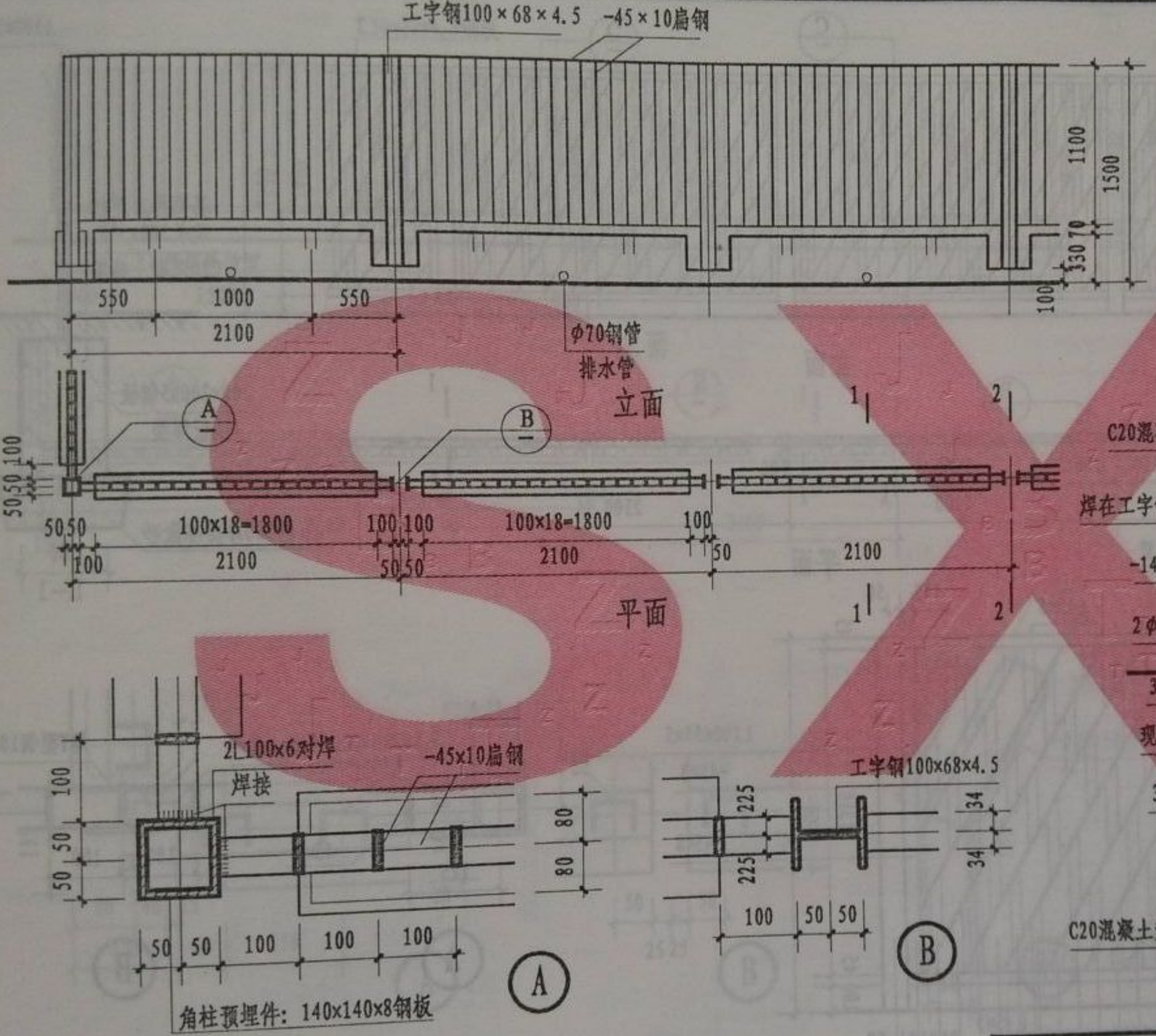


A



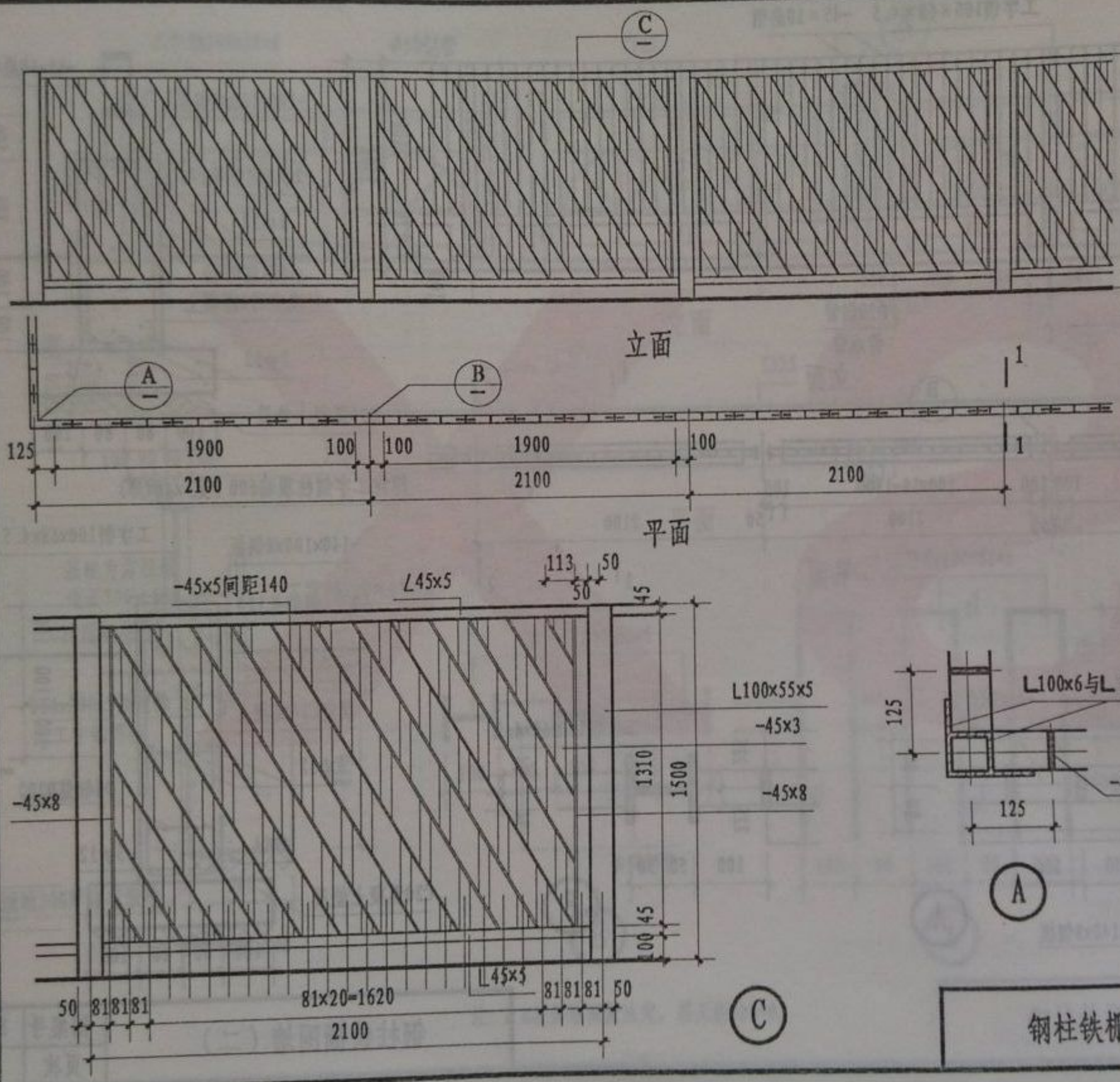
注：1. h根据地面做法定，若无做法h=0。

钢柱铁栅围墙（一）	图集号	12J9-1
	页次	33



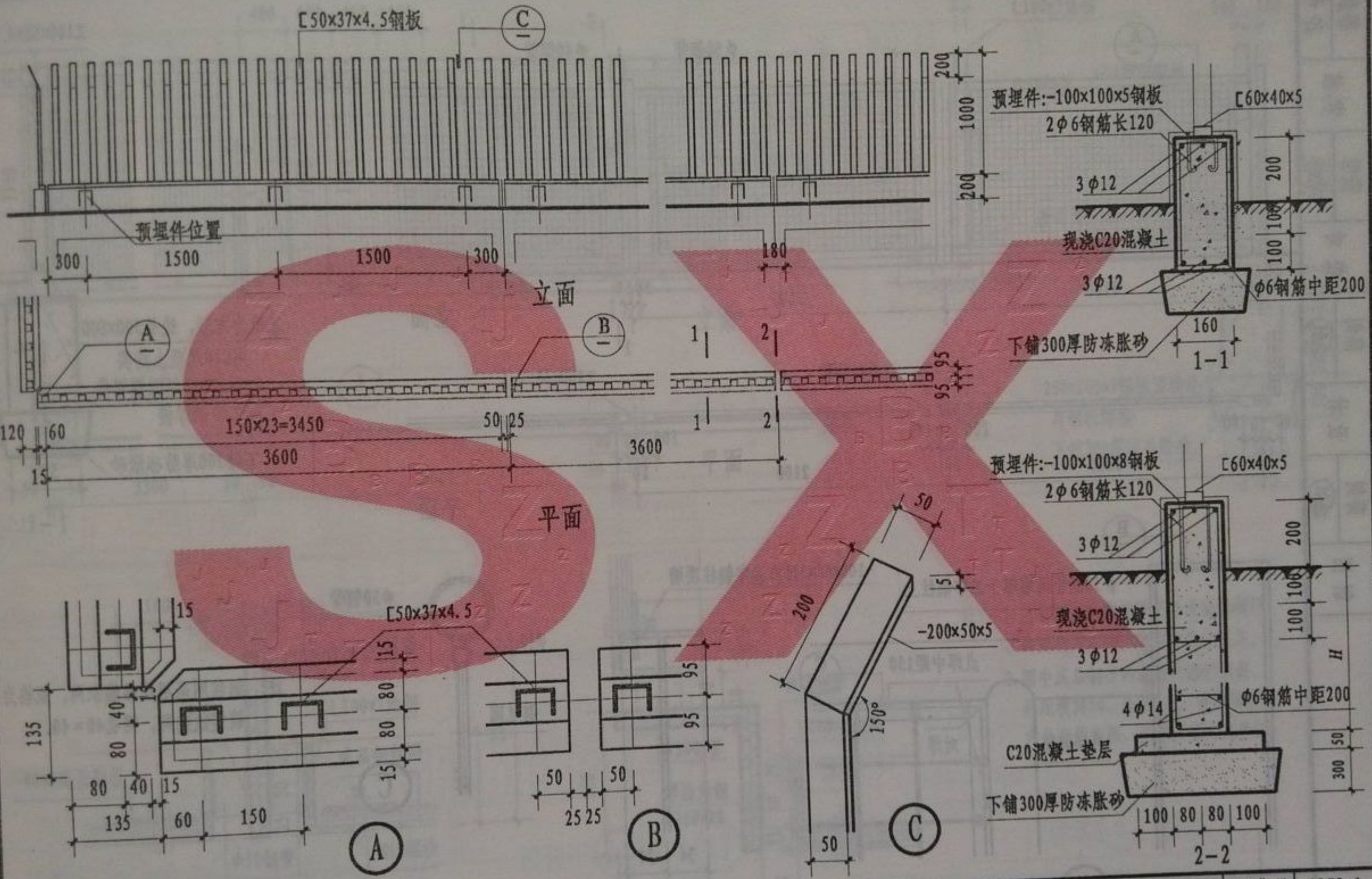
钢柱铁栅围墙（二）

图集号	12J9-1
页次	34



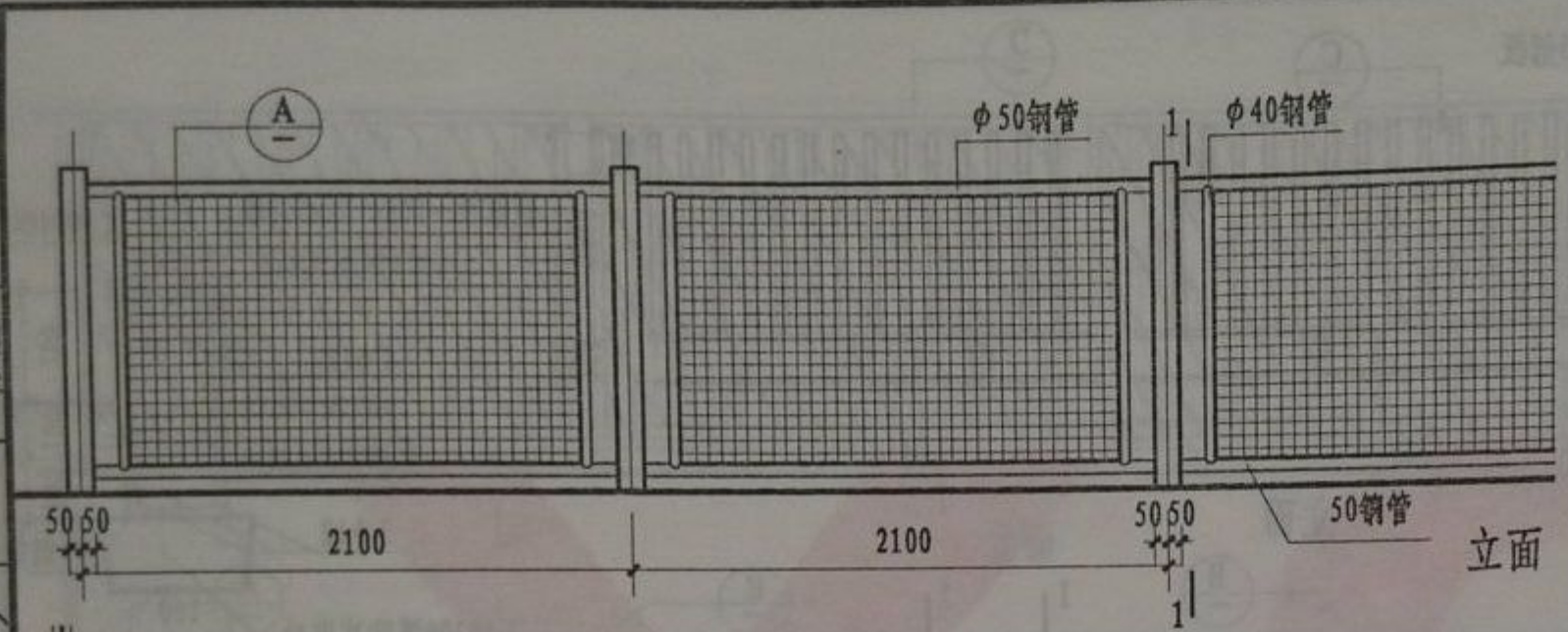
钢柱铁栅围墙（三）

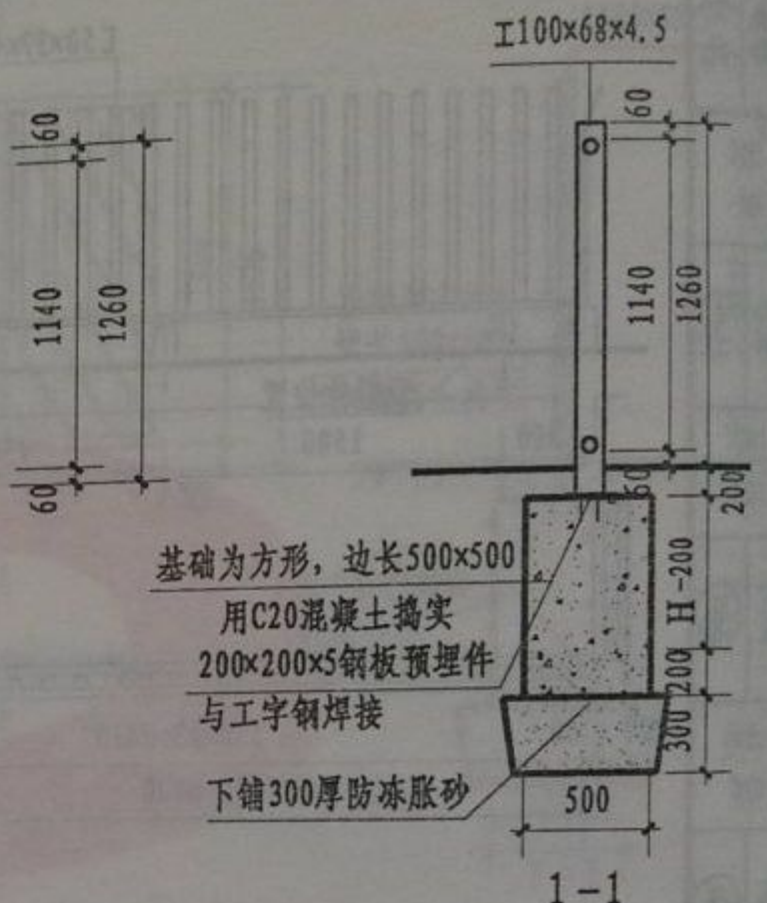
图集号	12J9-1
页次	35

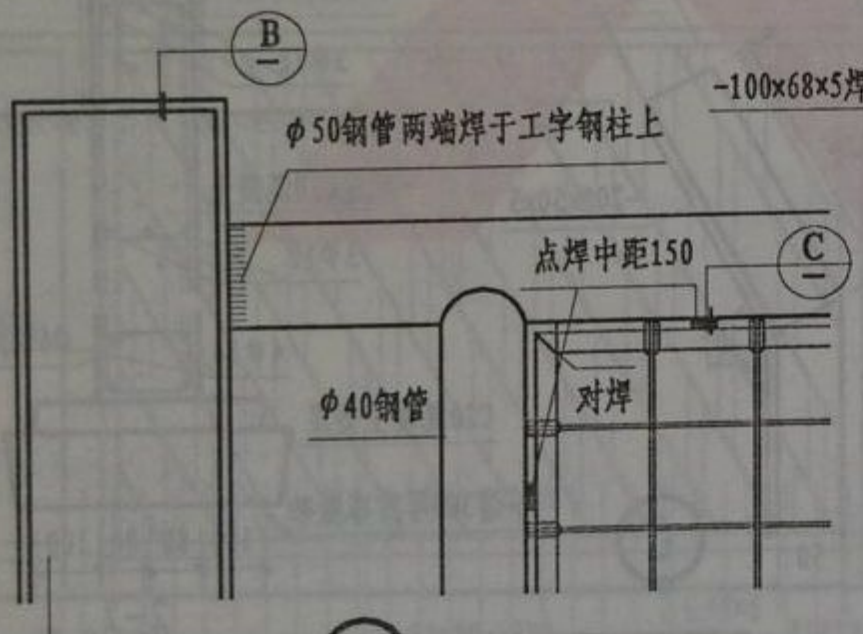


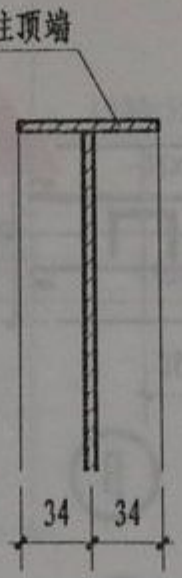
金属栅围墙

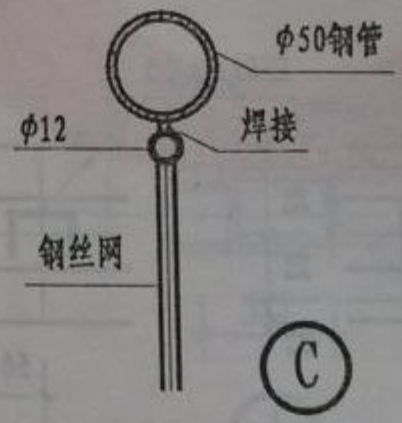
图集号	12J9-1
页次	36





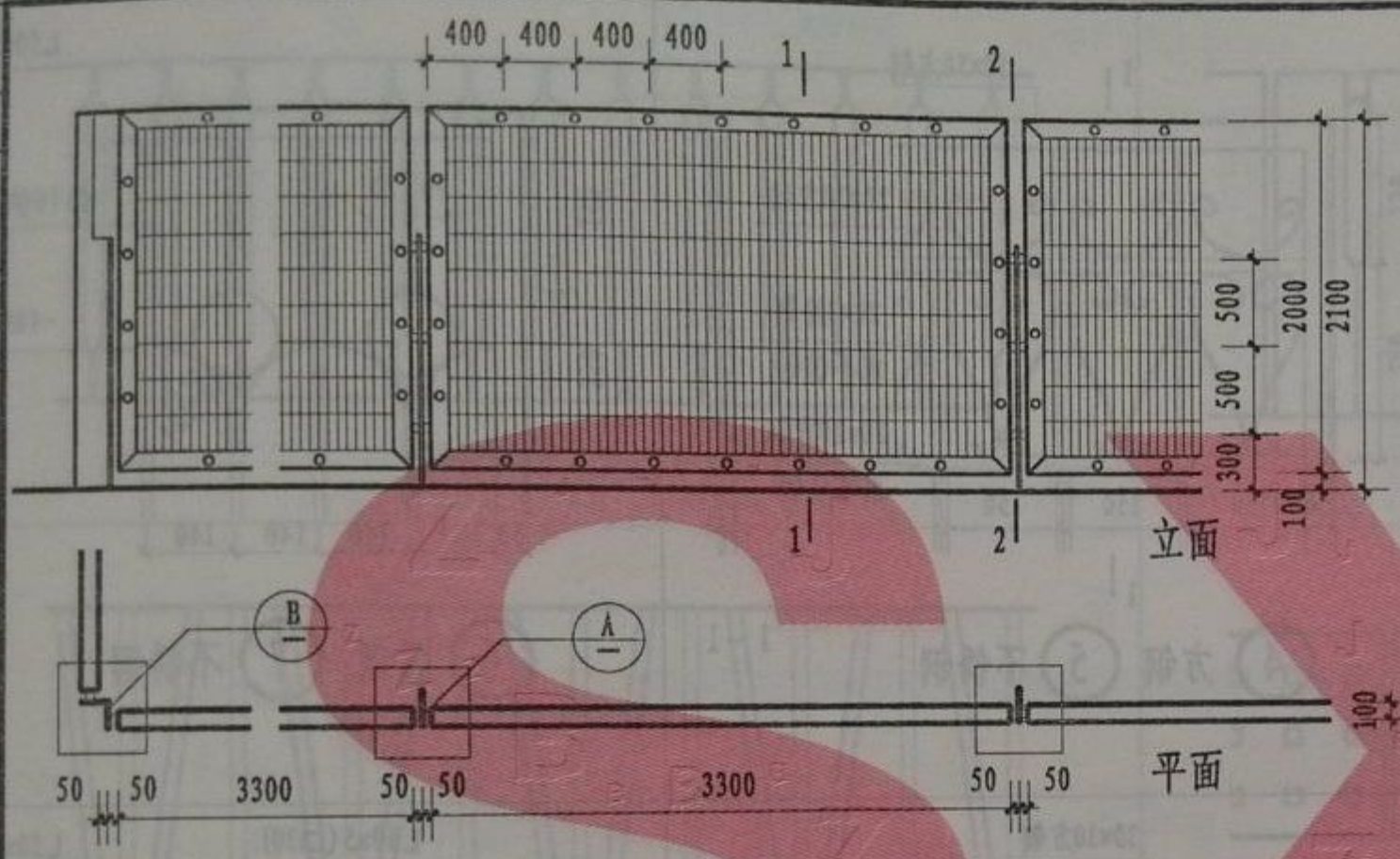


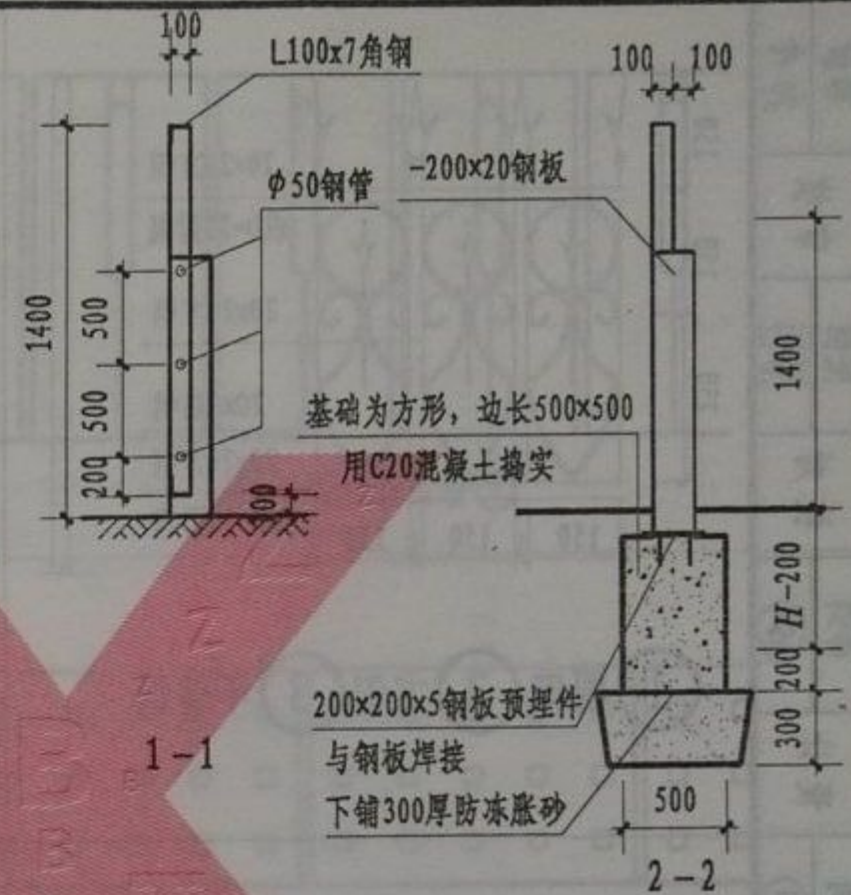


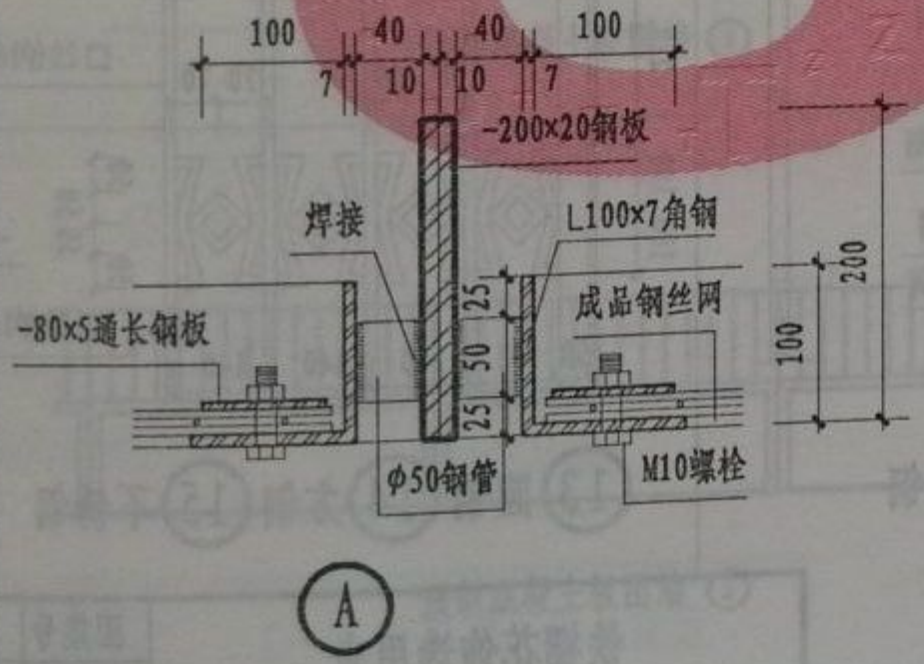


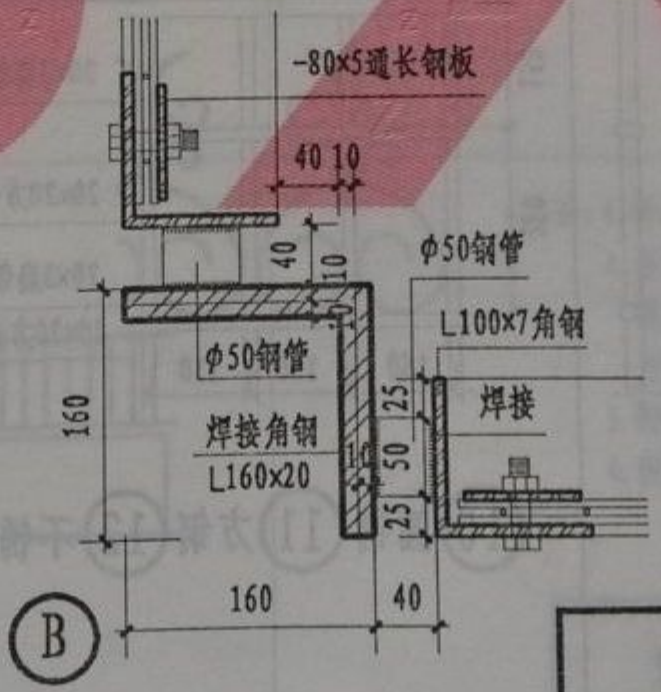
注：钢丝网采用成品编织网，规格为10号镀锌铁丝网，网孔40×40。

钢丝网铁栅围墙（一）	图集号	12J9-1
	页次	37





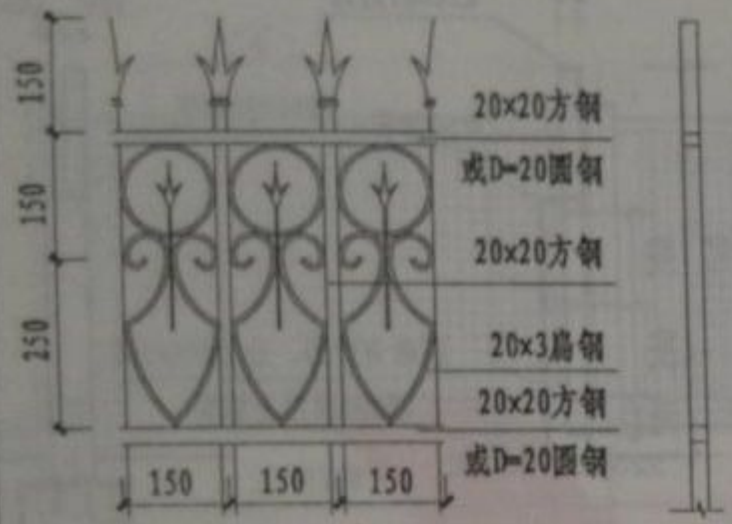




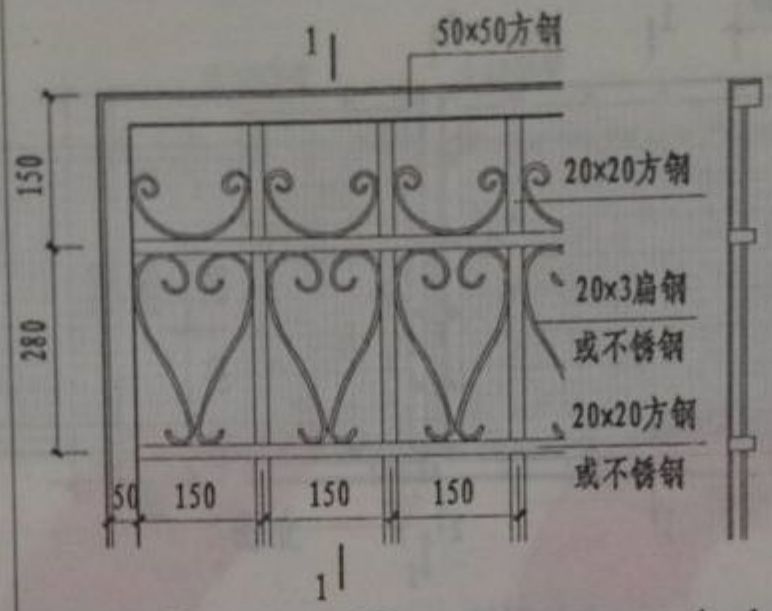
注：1. 所有露明铁件均采用外表面热镀锌的处理方法外，饰面由设计人定。

2. 图中成品钢丝网选用光圆φ5钢筋，间距横向50，纵向200，横向钢筋为内外交错两根，钢丝网表面热镀锌。

钢丝网铁栅围墙（二）	图集号	12J9-1
	页次	38

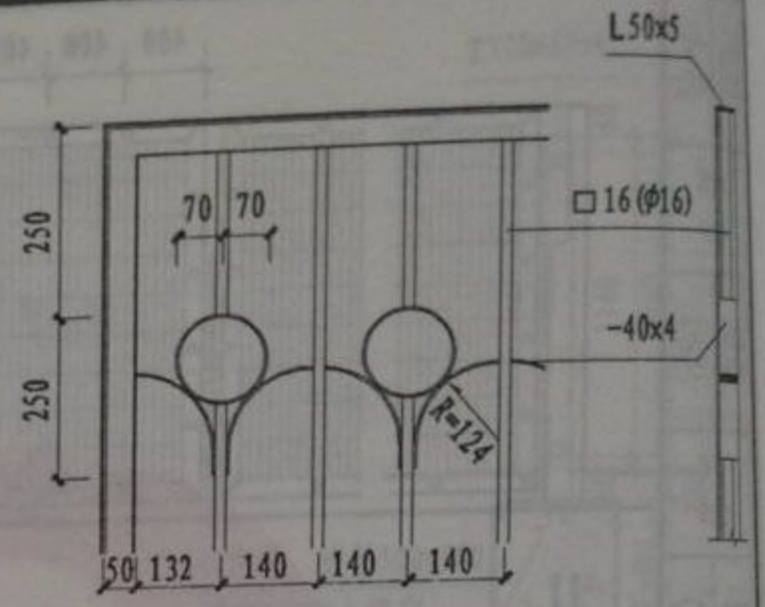


① 圆钢 ② 方钢 ③ 不锈钢

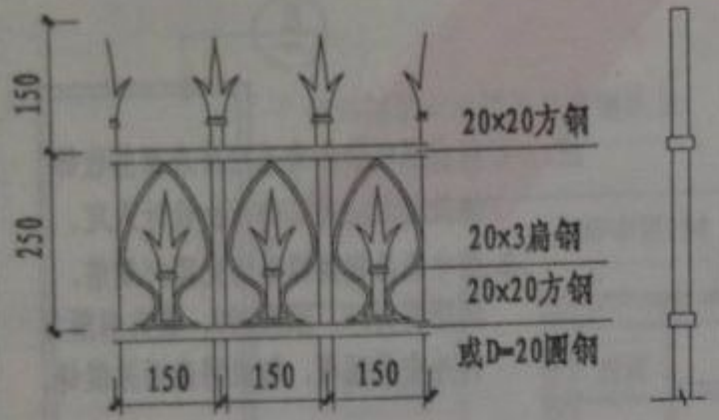


④ 方钢 ⑤ 不锈钢

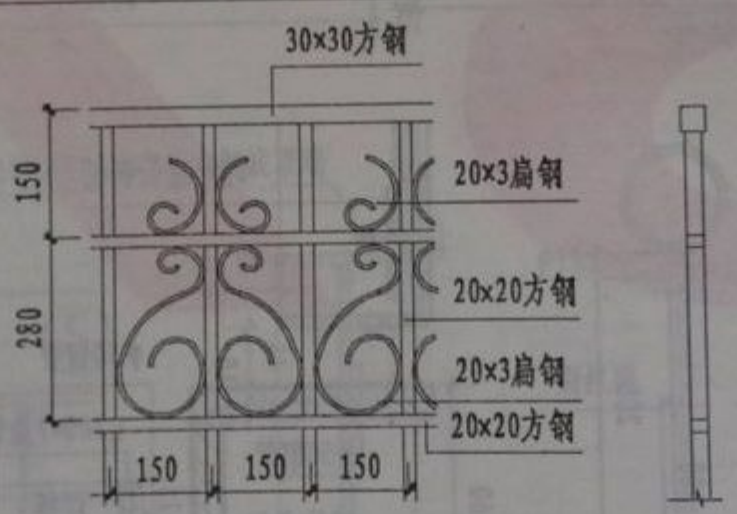
1-1



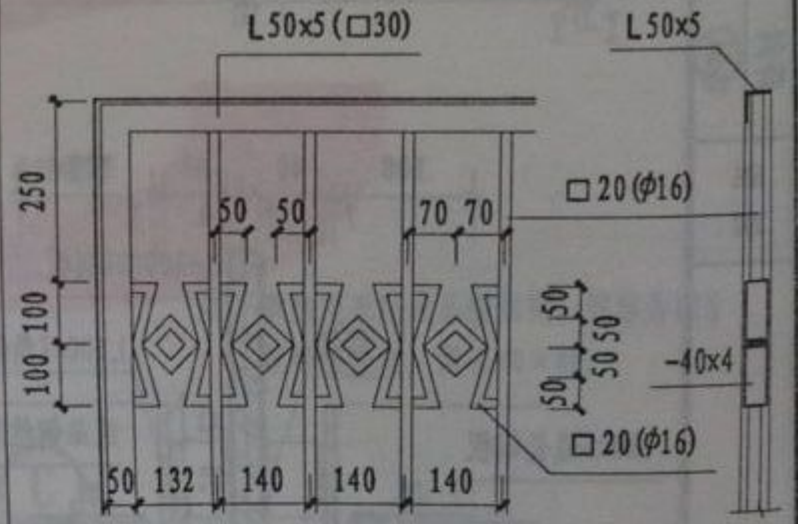
⑥ 圆钢 ⑦ 不锈钢



⑧ 圆钢 ⑨ 方钢

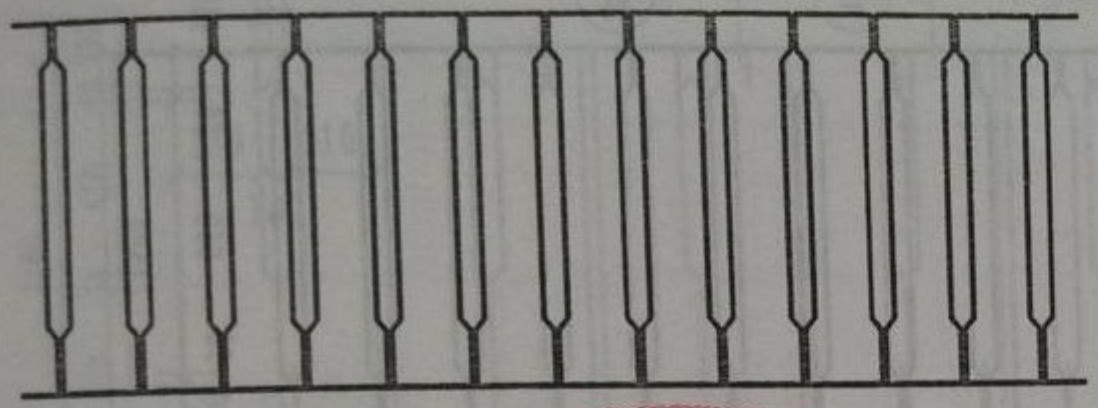


⑩ 圆钢 ⑪ 方钢 ⑫ 不锈钢

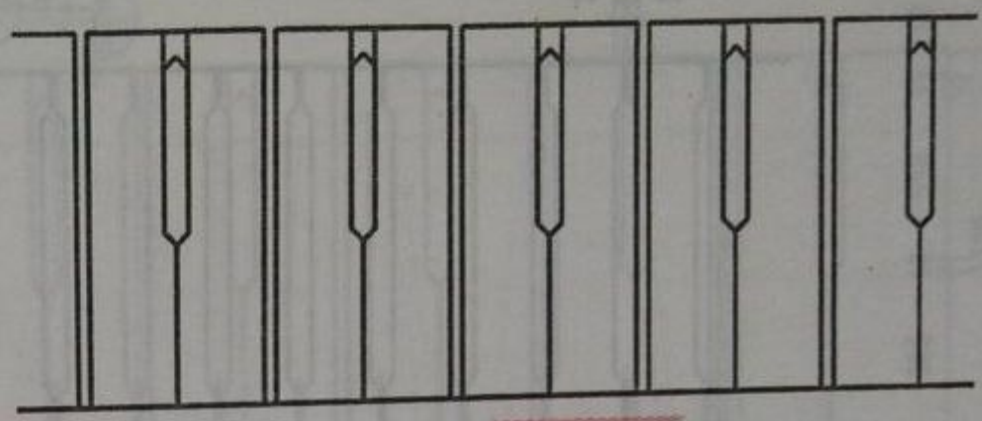


⑬ 圆钢 ⑭ 方钢 ⑮ 不锈钢

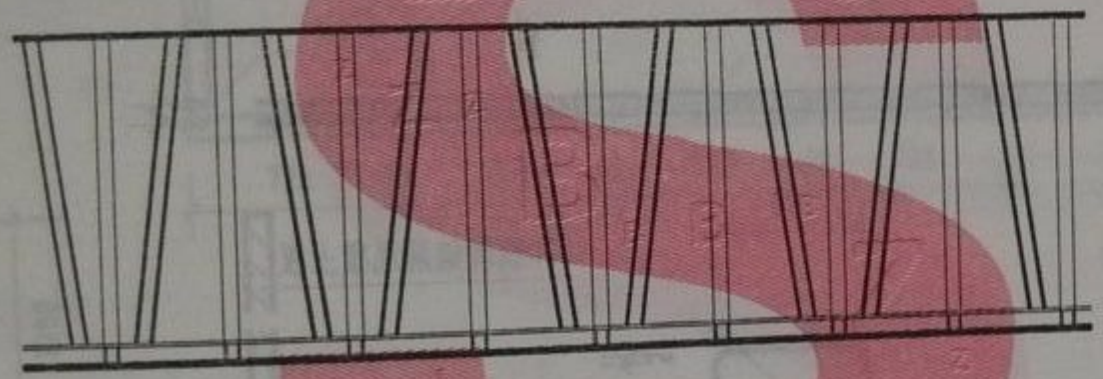
铁栅花饰选用表	图集号	12J9-1
	页次	39



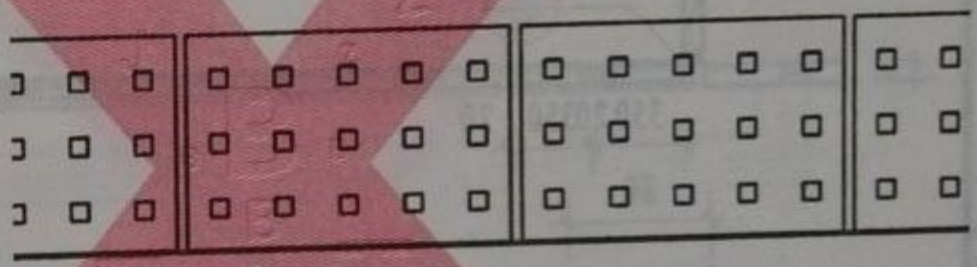
预制混凝土板围墙 ①



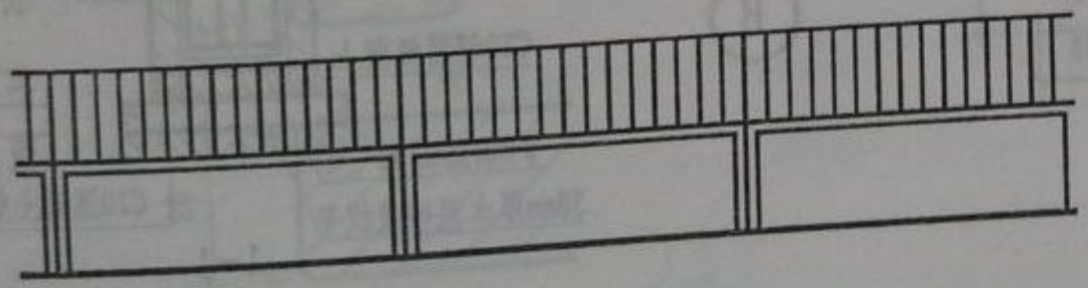
预制混凝土板围墙 ②



预制混凝土板围墙 ③



预制混凝土板围墙 ④

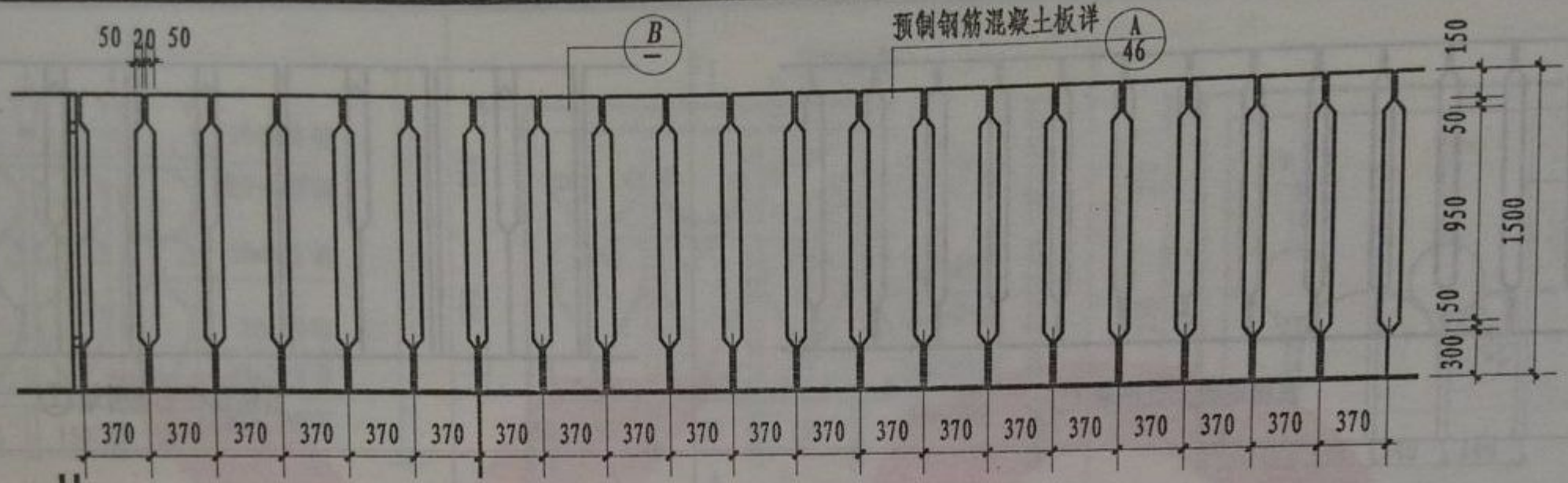


预制混凝土板围墙 ⑤

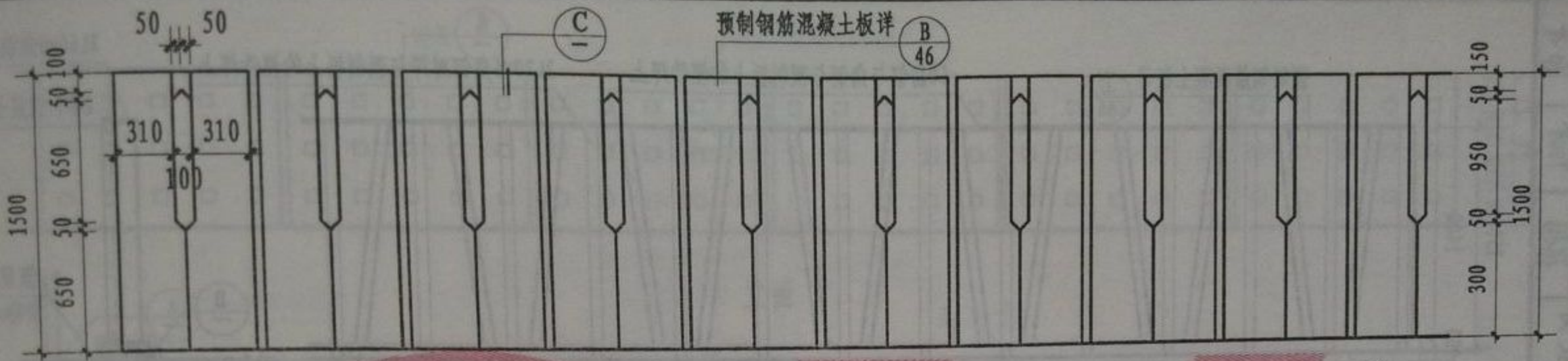
注：1. 每块预制混凝土板现场以细石混凝土固定对齐。
2. 预制混凝土板混凝土强度等级C20，外饰为清水混凝土，也可以在外面刷涂料二道，颜色由设计人定。
3. 钢连接件焊缝锉平磨光。
4. 图中基础埋深H＞冰冻线深度。

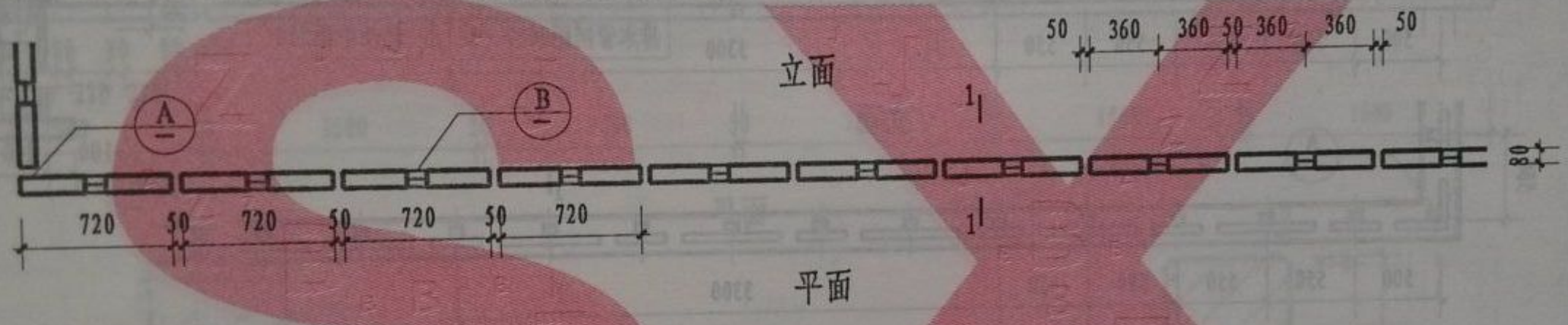
预制混凝土板围墙选用表	图集号	12J9-1
	页次	40

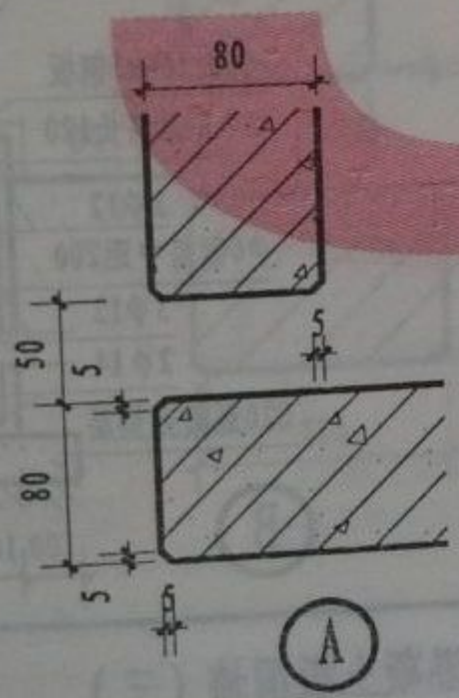
审核 孙方 校对 张恒 设计 围墙

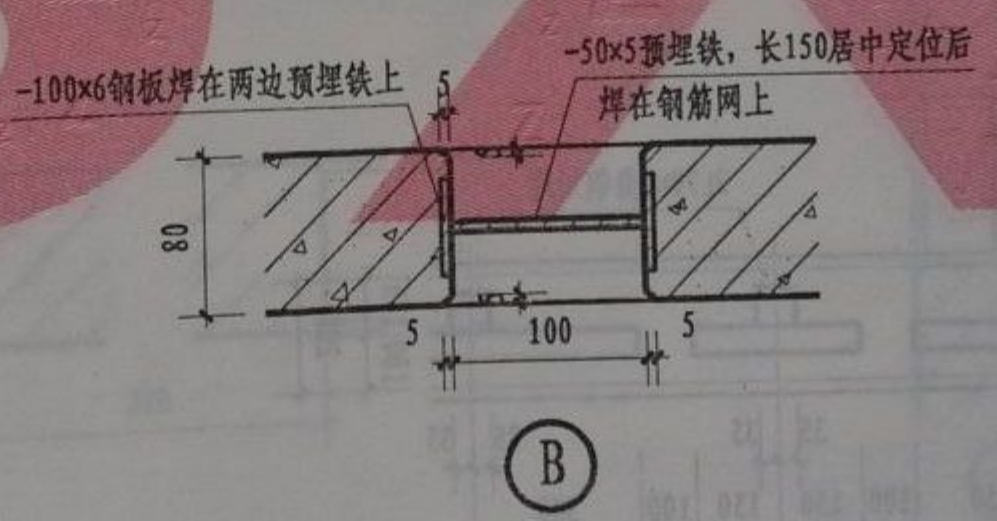


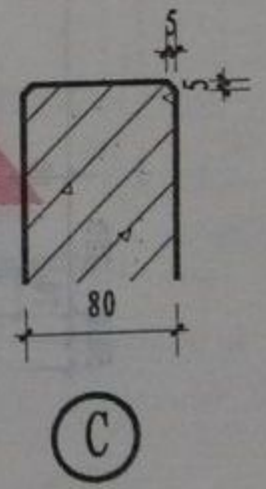
预制混凝土板围墙（一）	图集号	12J9-1
	页次	41





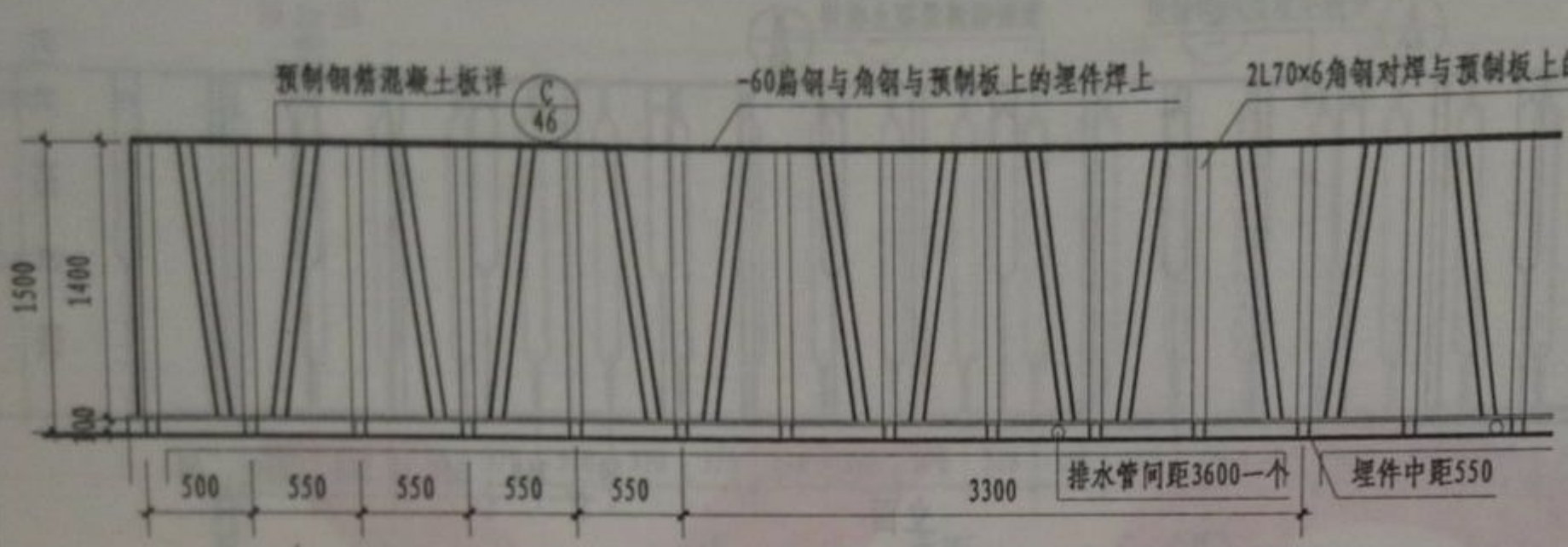




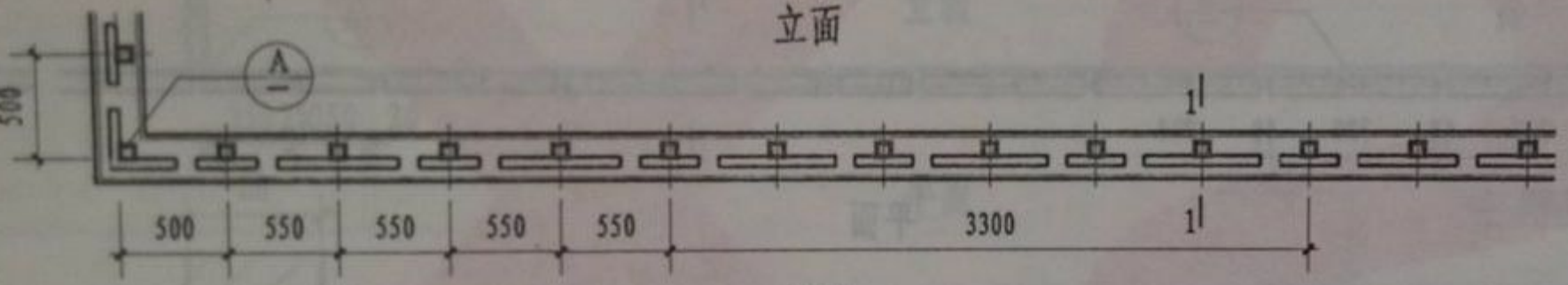


注：1-1剖面见41页

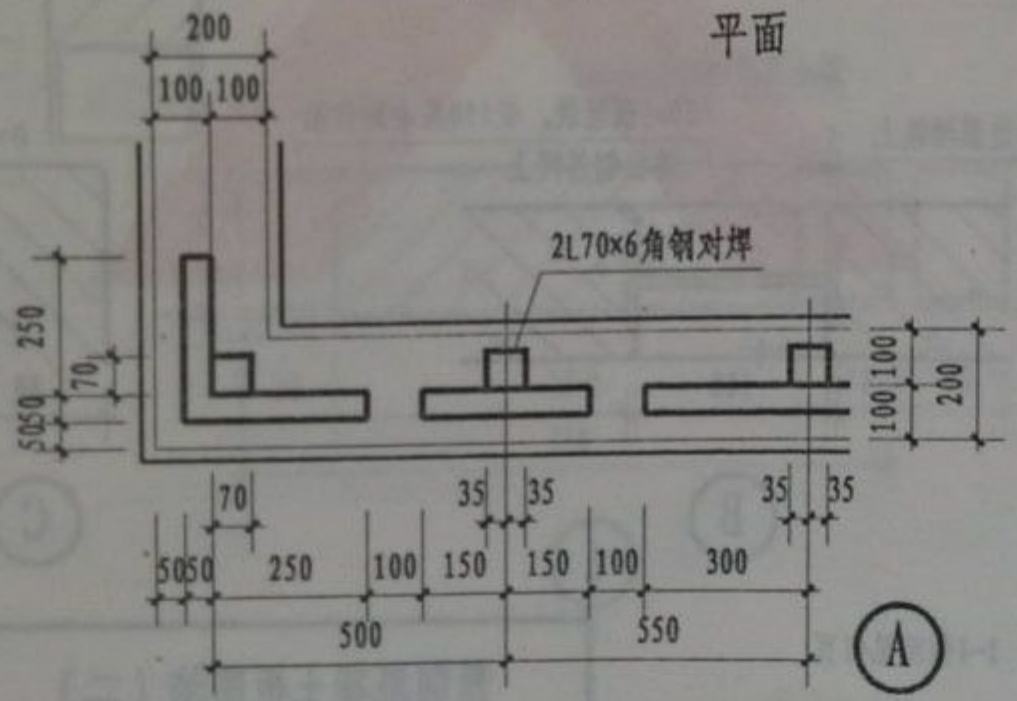
预制混凝土板围墙（二）	图集号	12J9-1
	页次	42

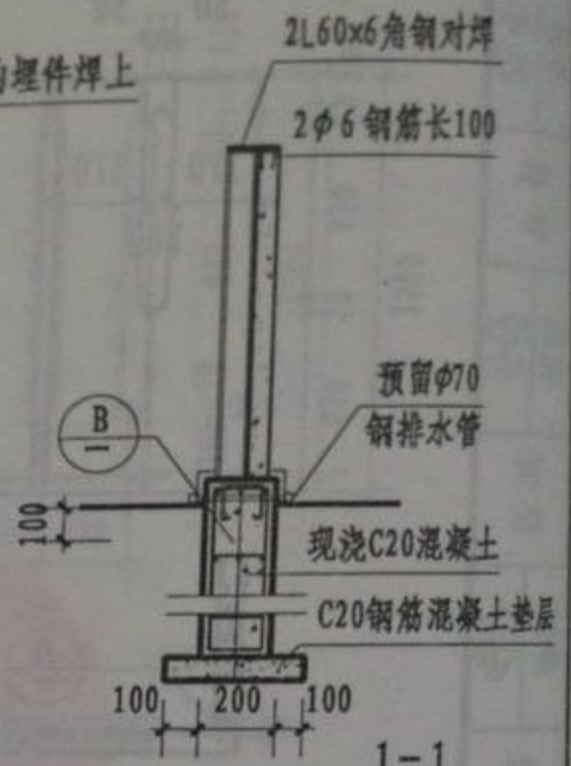


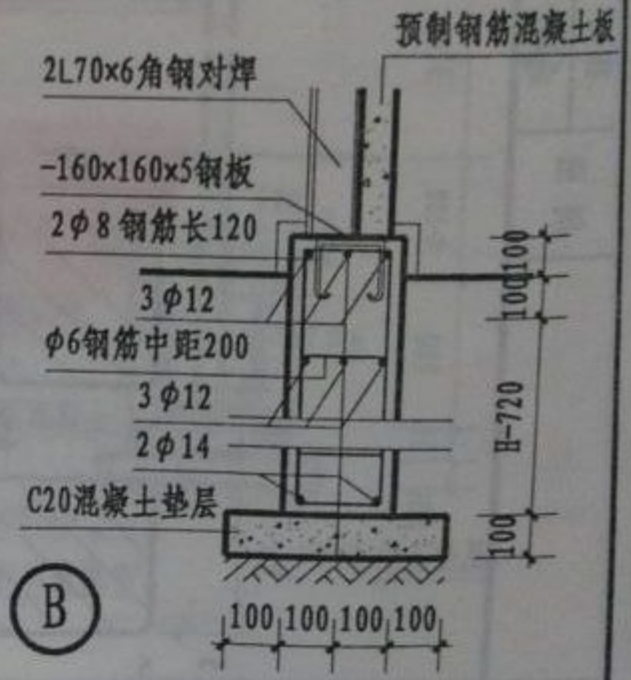
立面



平面



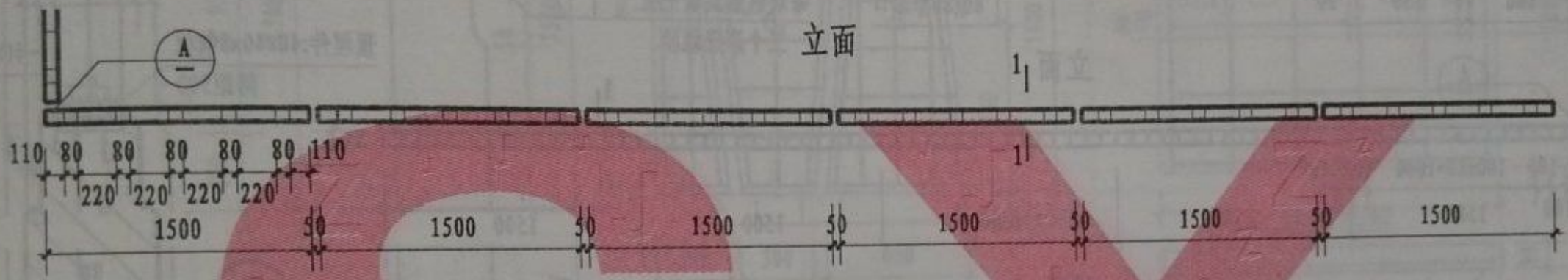




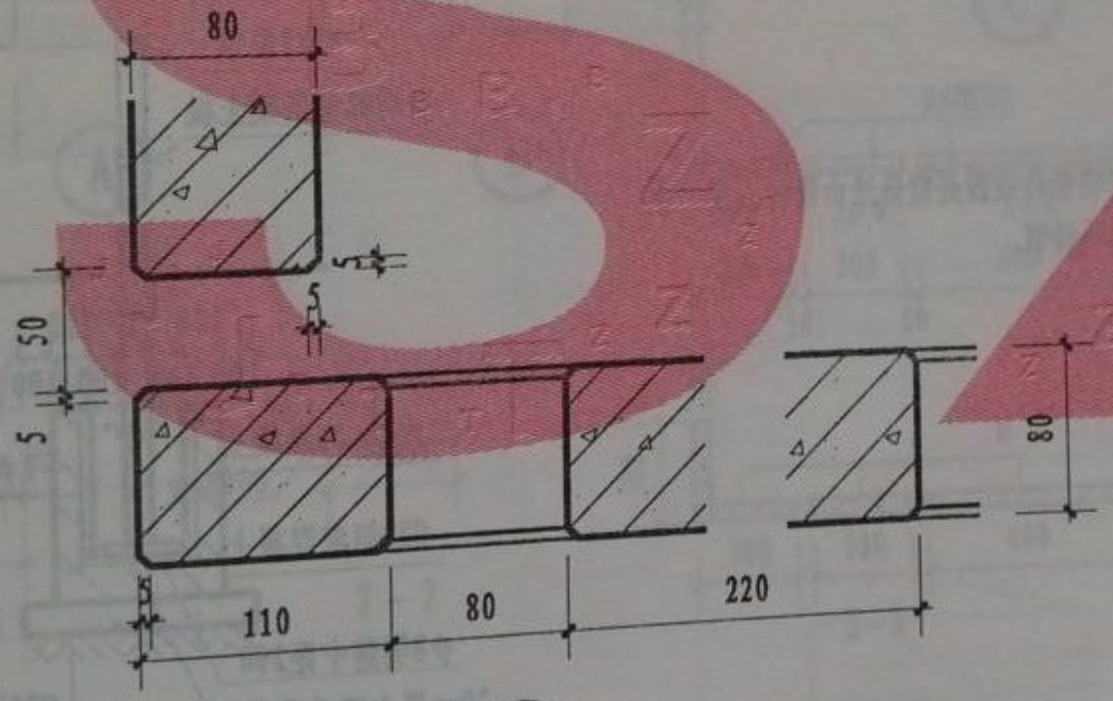
预制混凝土板围墙（三）	图集号	12J9-1
	页次	43



立面



平面



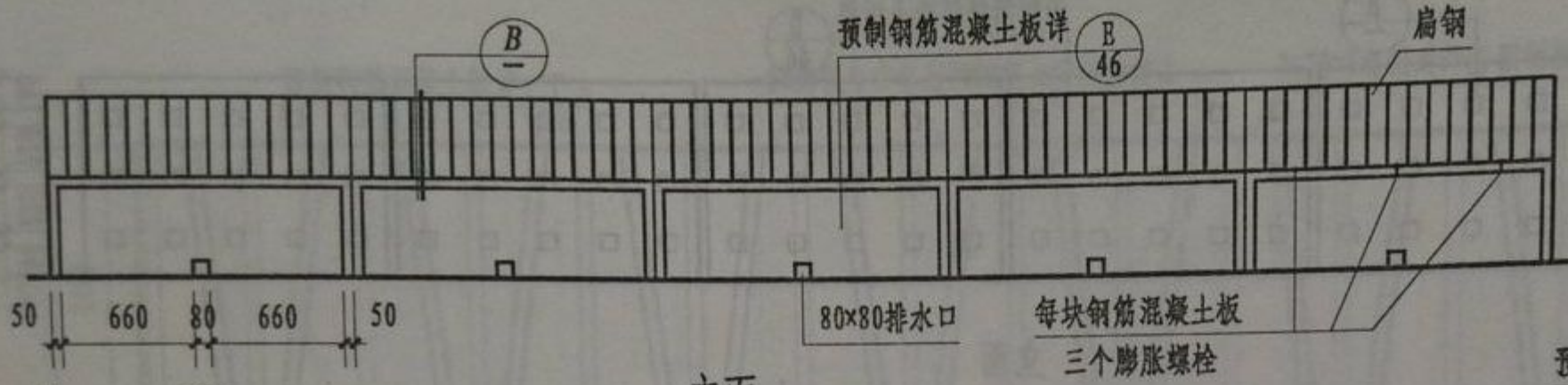
A

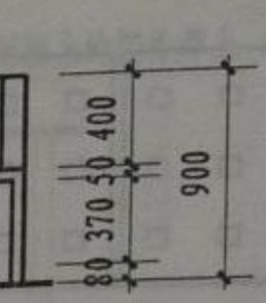


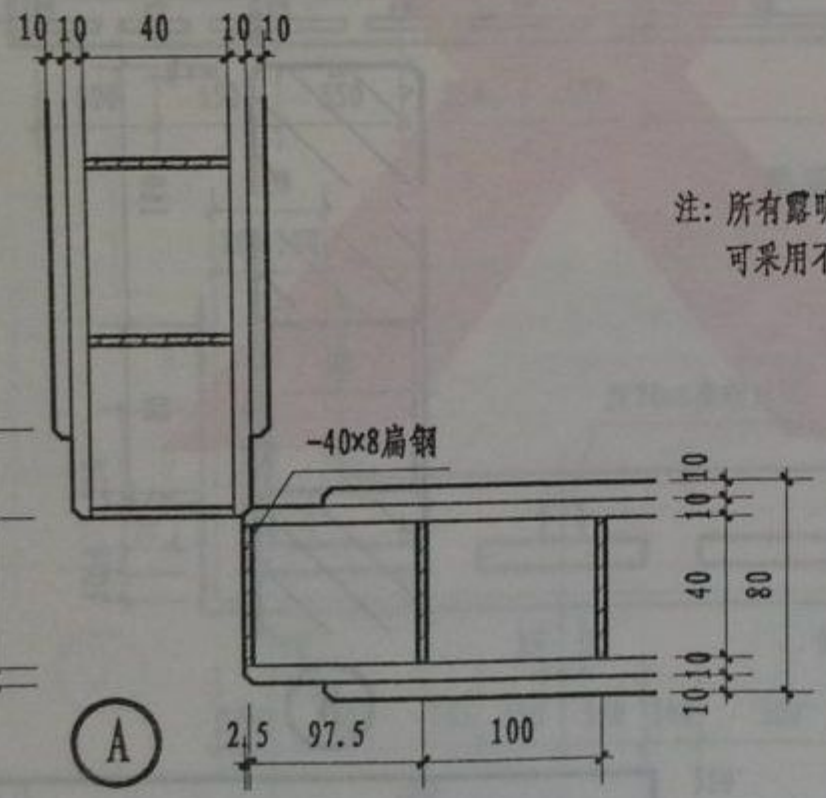
B

注：1-1剖面见41页。

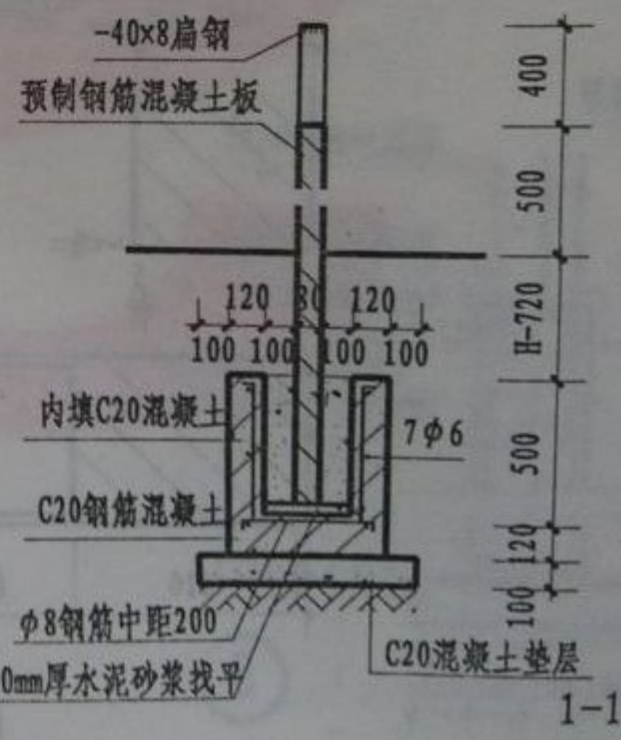
预制混凝土板围墙（四）	图集号	12J9-1
	页次	44



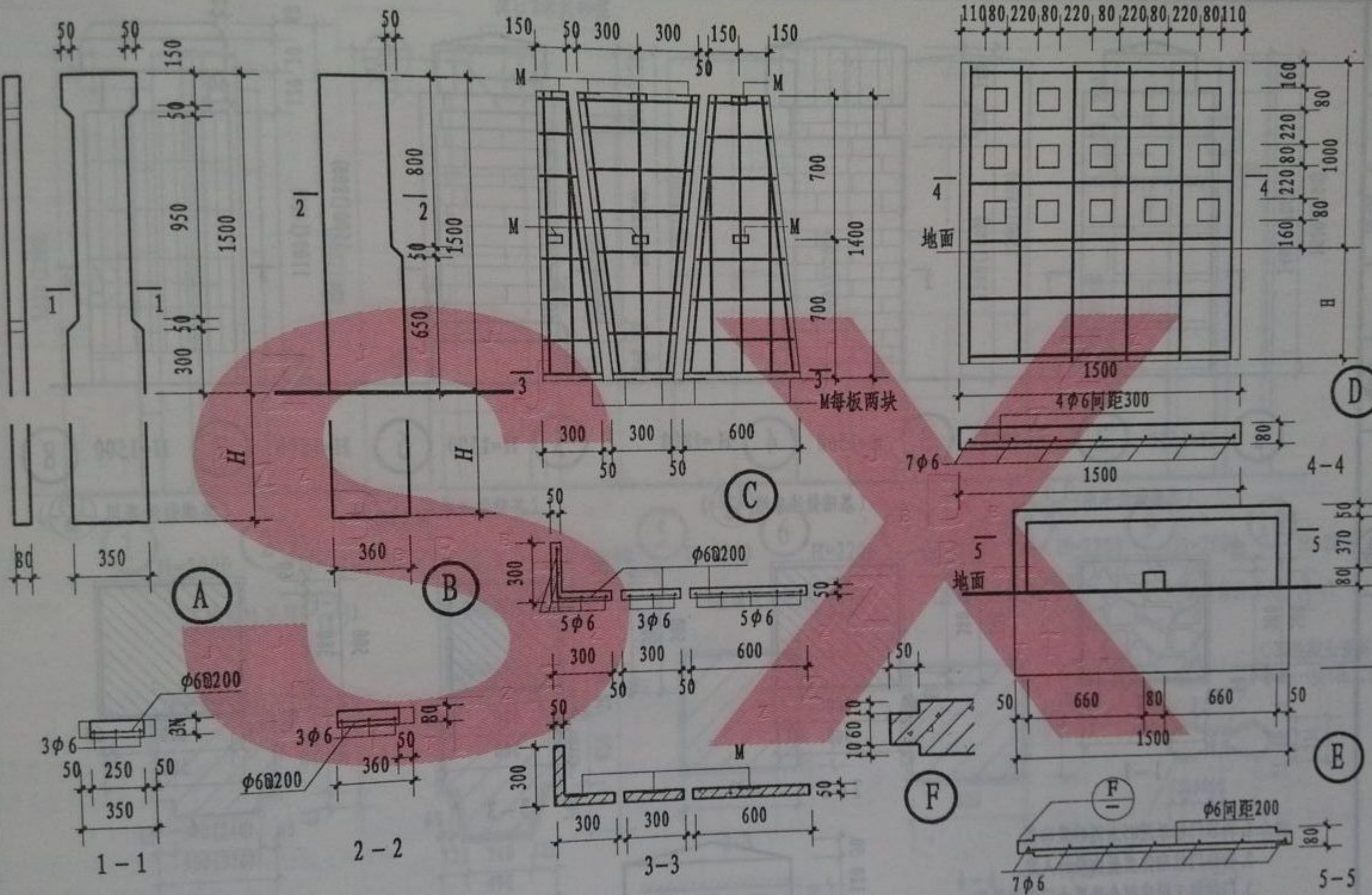




注：所有露明铁件表面处理做法由设计人定，也可采用不锈钢。



预制混凝土板围墙（五）	图集号	12J9-1
	页次	45

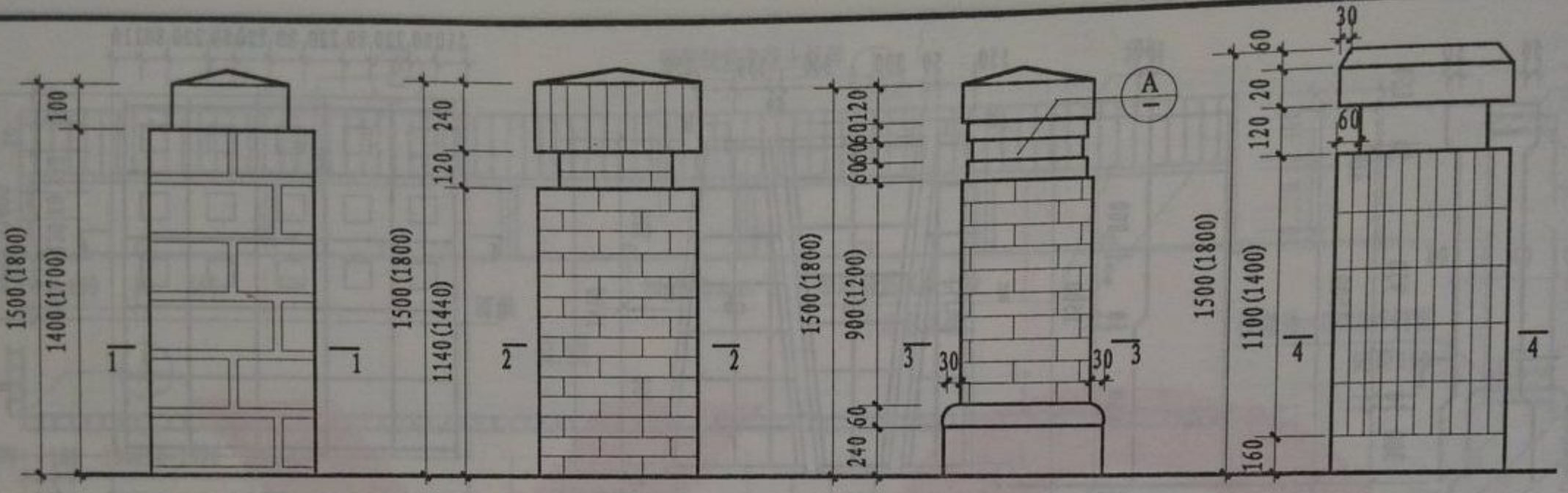


注：1.M为-50×5，锚筋长100。

2.预制混凝土板采用C20混凝土，50厚板采用C20细石混凝土预制，采用抛光模板，一次成活。

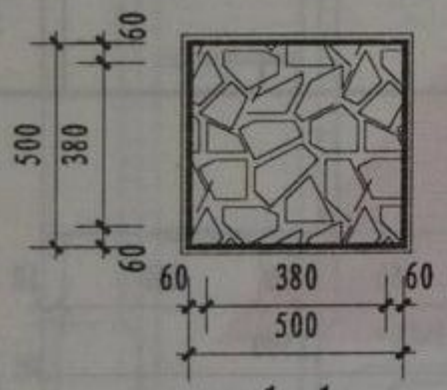
3.堆放、安装搬运等应防止断裂。

预制混凝土板详图	图集号	12J9-1
	页次	46

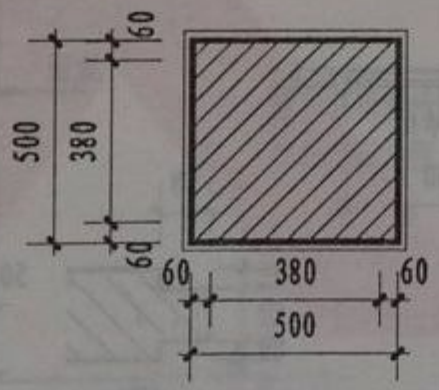


① H=1500　② H=1800　③ H=1500　④ H=1800　⑤ H=1500　⑥ H=1800　⑦ H=1500　⑧ H=1800

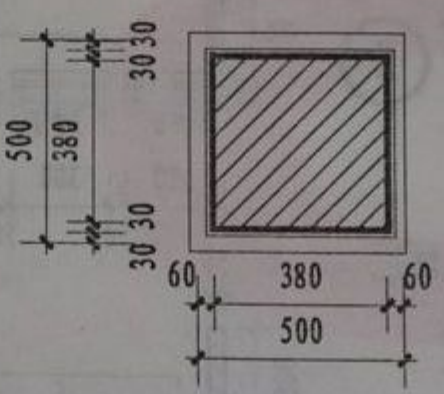
（基础做法采用 $\frac{1-3}{53}$）　（基础做法采用 $\frac{1-3}{53}$）　（基础做法采用 $\frac{1-3}{53}$）　（基础做法采用 $\frac{1-3}{53}$）



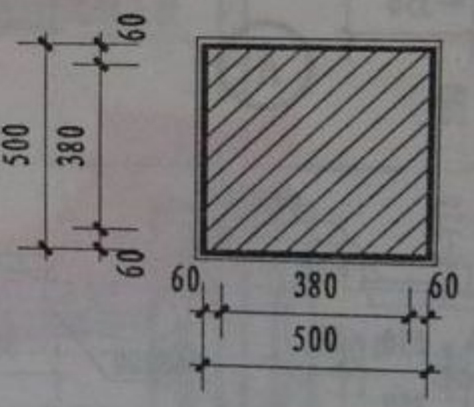
1－1



2－2

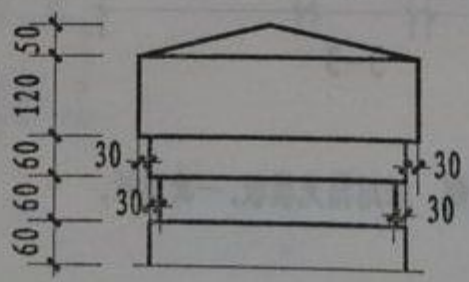


3－3



4－4

注：1. 料石门柱采用M5水泥砂浆砌筑.
2. 砌体门柱砌体类型由设计人定.
3. 门柱施工时应配合选用大门预埋铁件，有照明要求时，须预埋电线管接线盒.
4. 饰面材料、颜色由设计人定.



门柱（一）

图集号	12J9-1
页次	47

抹1:2水泥砂浆

60
2000(2200)
A
1
1
1
H=2000

120
2000(2200)
2
2
2
H=2200
(基础做法采用 1-3/53)

2000(2200)
3
3
H=2000
(基础做法采用 1-3/53)

2000(2200)
3
4
4
H=2200
(基础做法采用 1-3/53)

180
300
2000(2200)
5
5
H=2000
(基础做法采用 4/53)

180
H=2200

1-1

65
370
500
65
65
370(240)
65
500(370)

2-2

240
370
850
240
65
125
240
125
490

3-3

620
620

4-4

620
620

5-5

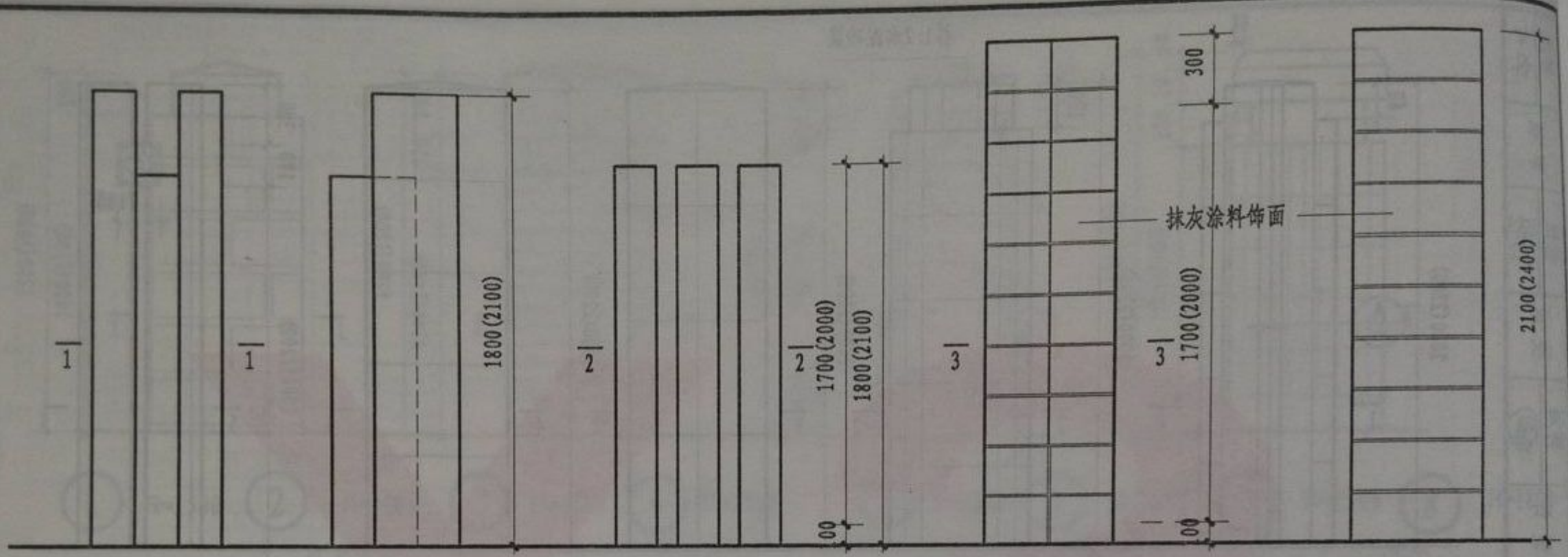
C20混凝土预制花式
每边一块(花式自选)
6φ10
75
80
230
75
75
150
60
310
φ6钢筋
中距200

10 20 10 20 10
20

A

门 柱(二)	图集号	12J9-1
	页次	48

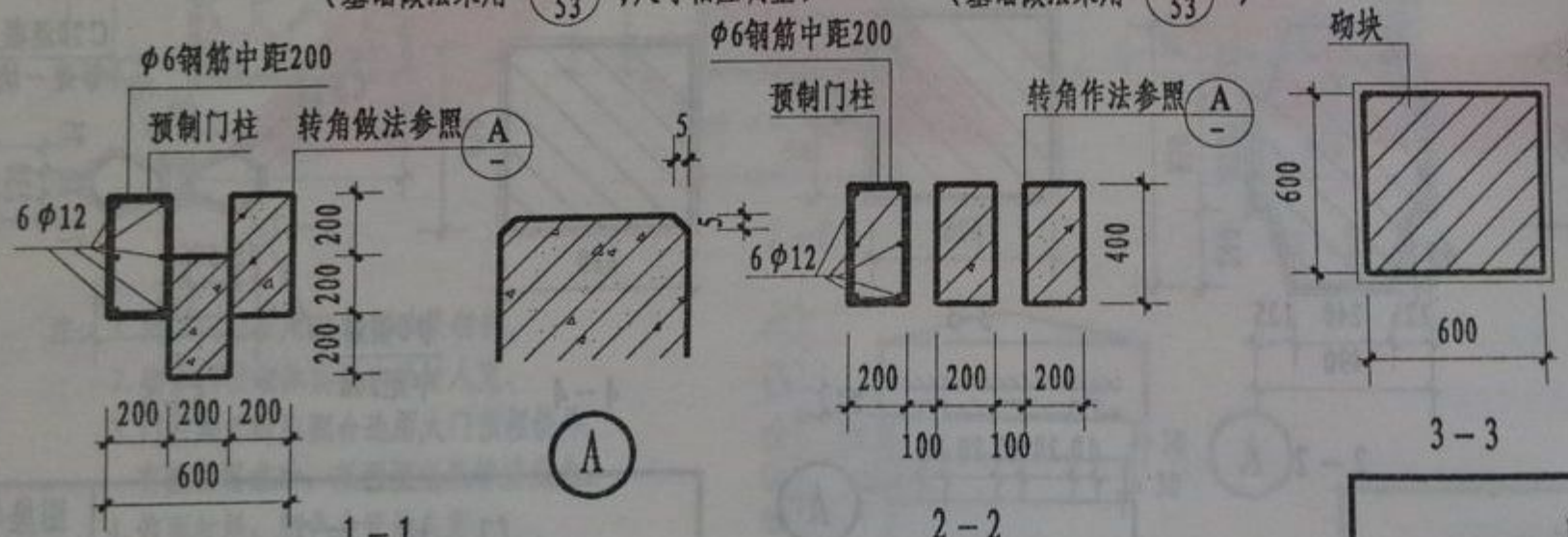
设计	薛剑	校对	张恒	审核	郭彦



正立面　　侧立面　　正立面　　侧立面

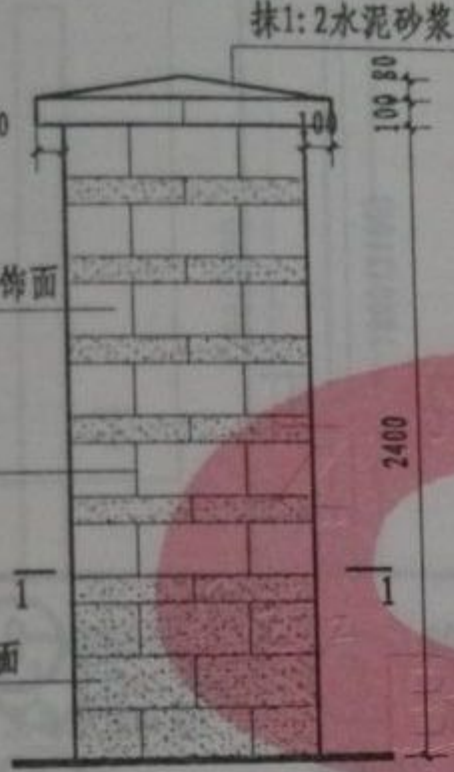
① H=1800　② H=2100　③ H=1800　④ H=2100　⑤ H=2100　⑥ H=2400（基础做法采用 2/53 3/53）

（基础做法采用 5/53，尺寸相应调整）　（基础做法采用 5/53）

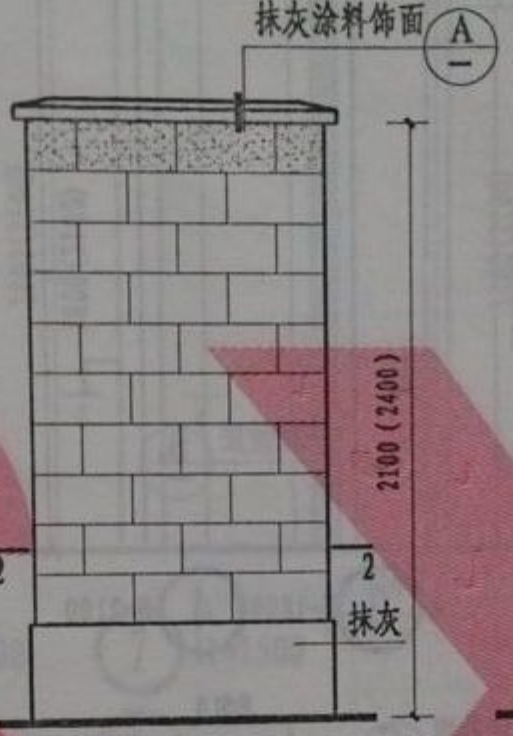


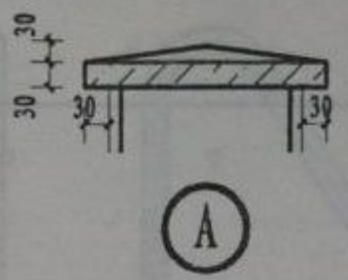
注：1. 钢筋混凝土柱采用C20混凝土.
2. 砌块门柱砌块类型由设计人定.
3. 门柱施工时应配合选用大门图预埋铁件.
4. 大样①~④外饰面为清水混凝土或涂外墙涂料颜色作法由设计人定.
5. 大样⑤~⑥外表面饰面为20厚1:2.5水泥砂浆抹平，涂料饰面品种、颜色由设计人定.

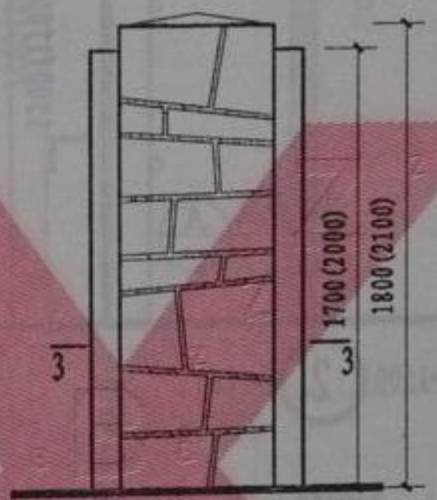
门柱（三）	图集号	12J9-1
	页次	49

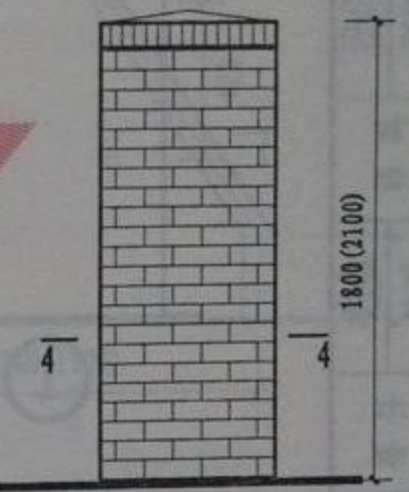










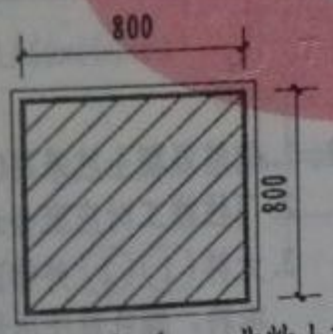


① H=2100 ② H=2400
(基础做法采用 1/53)

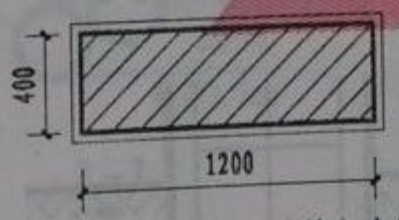
③ H=2100 ④ H=2400
(基础做法采用 1/53)

⑤ H=1800 ⑥ H=2100
(基础做法采用 2/53 3/53)

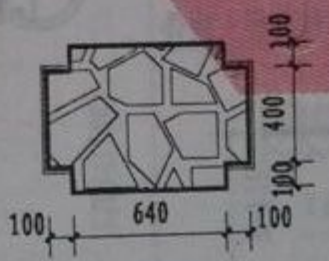
⑦ H=1800 ⑧ H=2100
(基础做法采用 2/53 3/53)



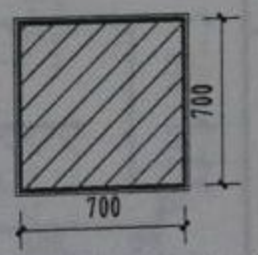
1-1 非粘土砖砌体



2-2 非粘土砖砌体



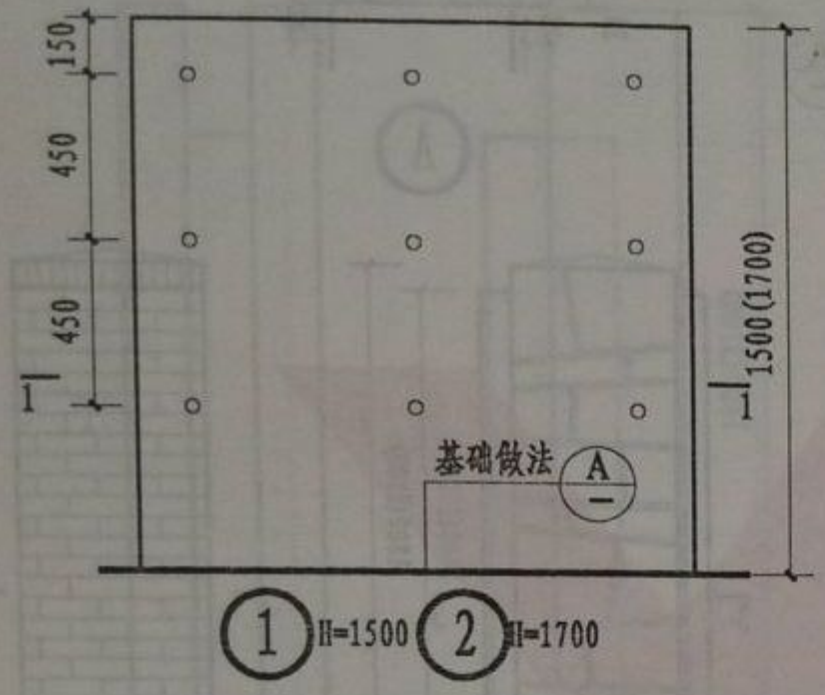
3-3 毛石砌体



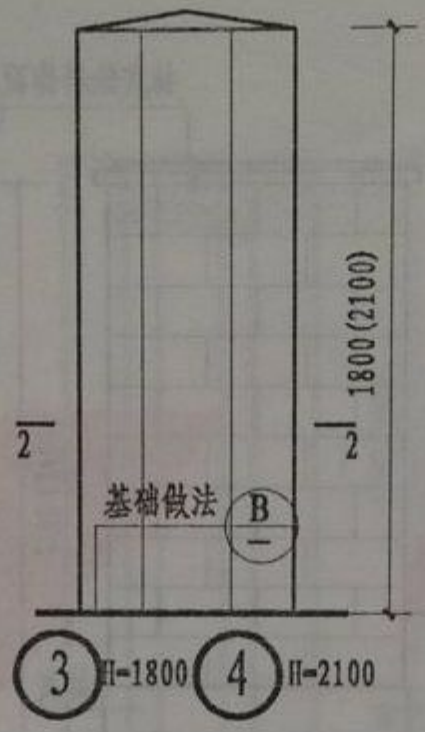
4-4 非粘土砖砌体

注:1.门柱施工时应配合选用大门图预埋铁件.

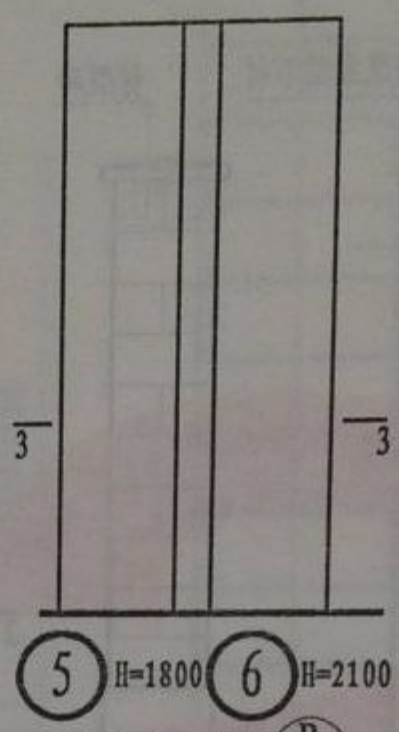
门柱(四)	图集号	12J9-1
	页次	50



1 H=1500 2 H=1700

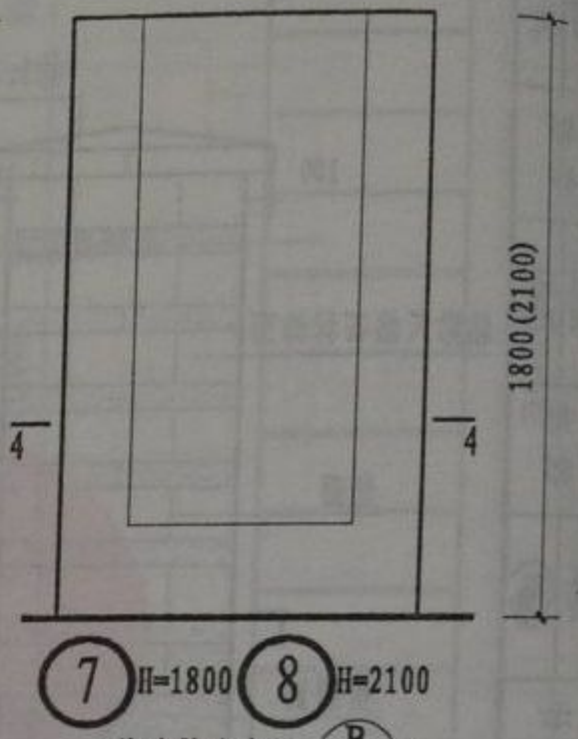


3 H=1800 4 H=2100



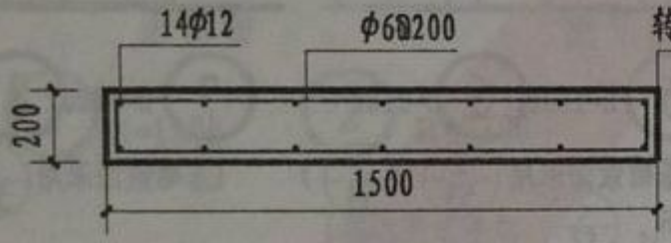
5 H=1800 6 H=2100

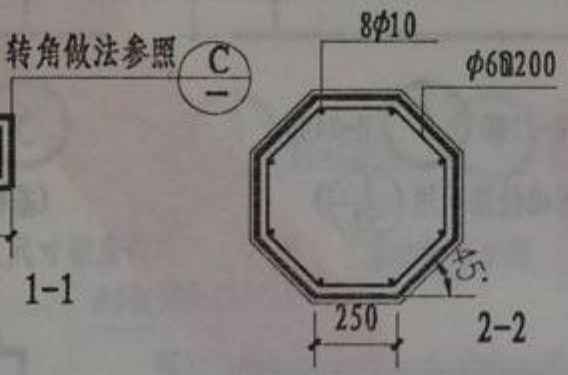
(基础做法参见 B —)

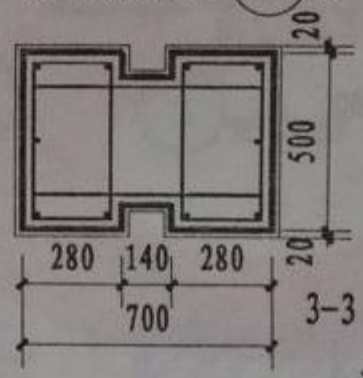


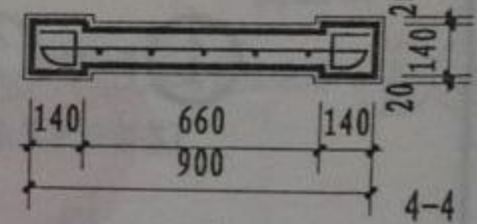
7 H=1800 8 H=2100

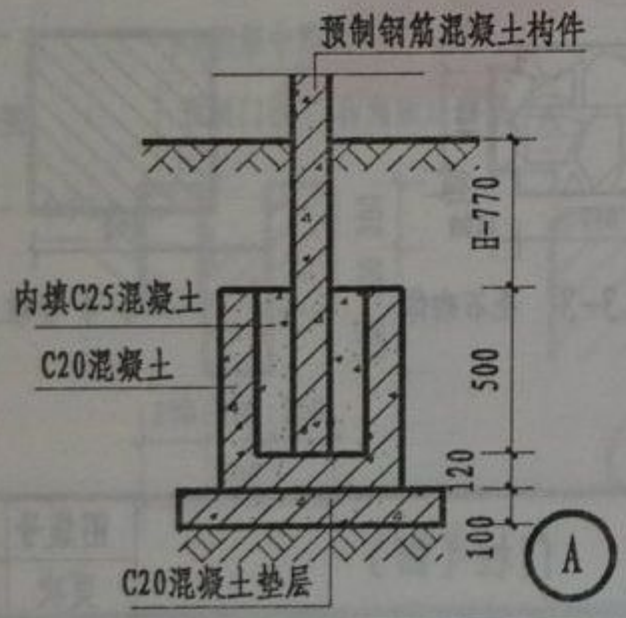
(基础做法参见 B —)

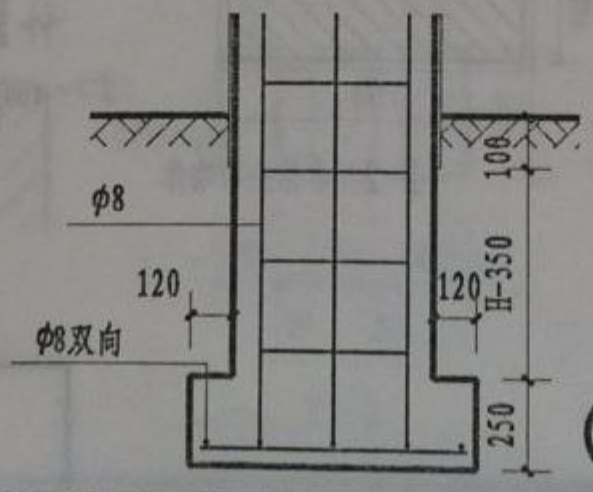


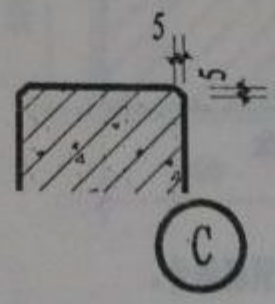












注：1. 钢筋混凝土柱采用C20混凝土。

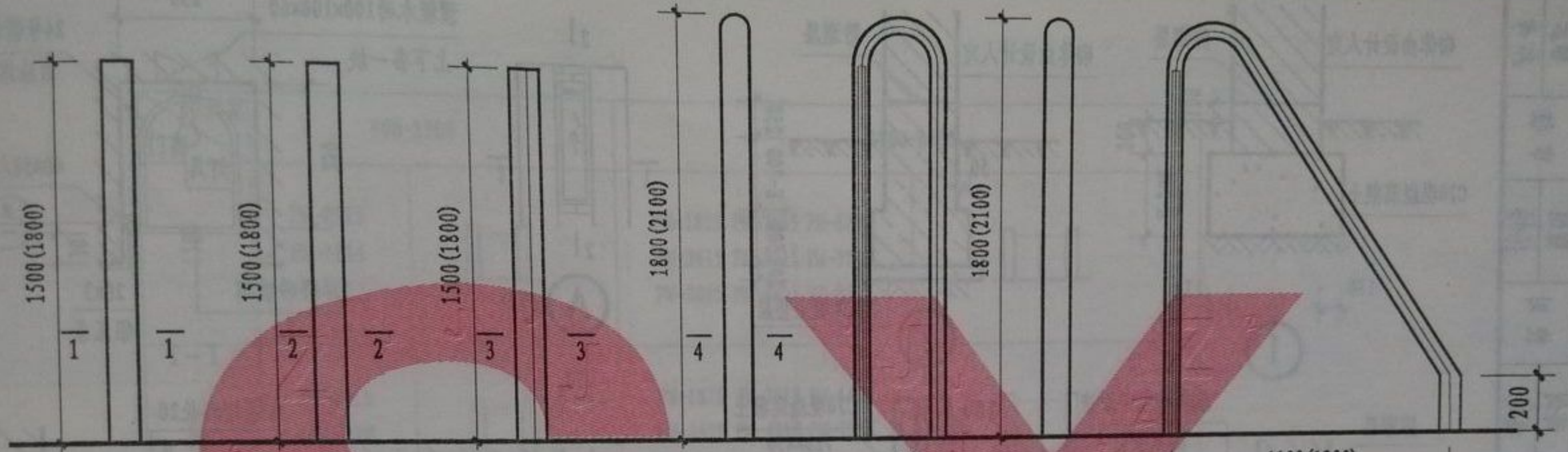
2. 门柱施工时应配合选用大门图预埋铁件。

3. 大样 ① ② 外饰面为清水混凝土或涂外墙涂料，颜色做法由设计人定。

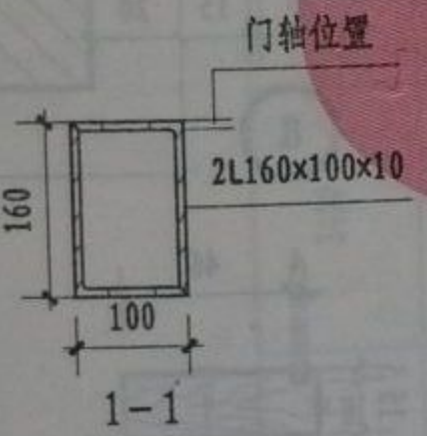
4. 大样 ③ - ⑧ 外表面饰面为20厚1:2.5水泥砂浆抹平，涂料饰面品种、颜色由设计人定。

5. 图中H＞冰冻线深度。

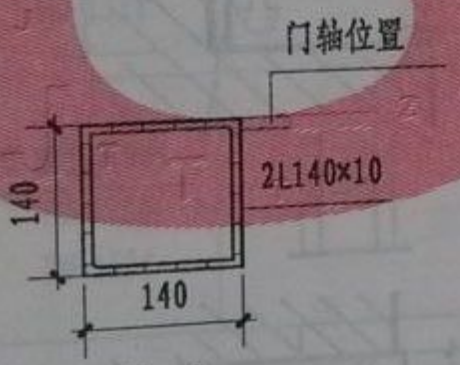
门柱（五）	图集号	12J9-1
	页次	51



① H=1500　② H=1800　③ H=1500　④ H=1800　⑤ H=1500　⑥ H=1800　⑦ H=1500　⑧ H=1800　⑨ H=1500　⑩ H=1800



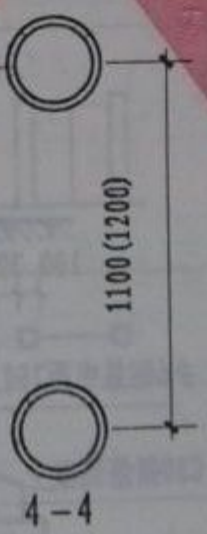
1－1



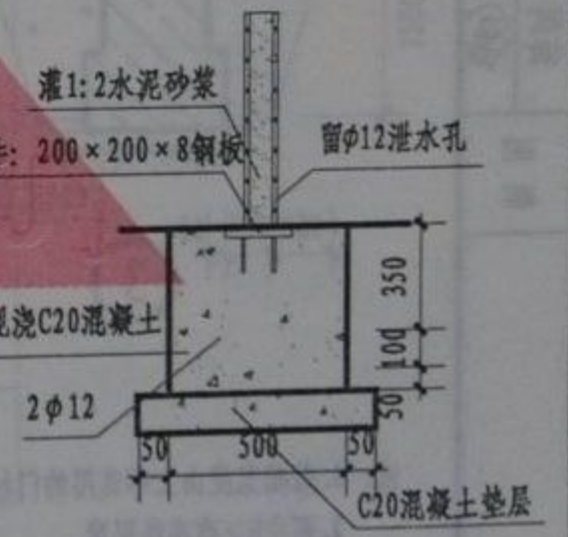
2－2



3－3



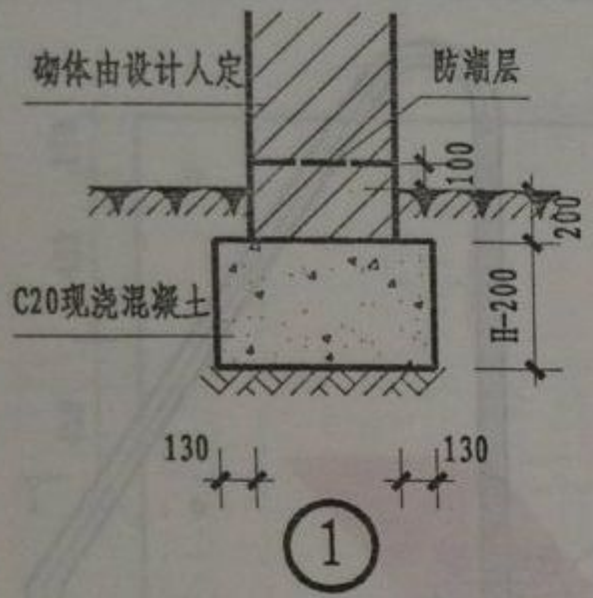
4－4



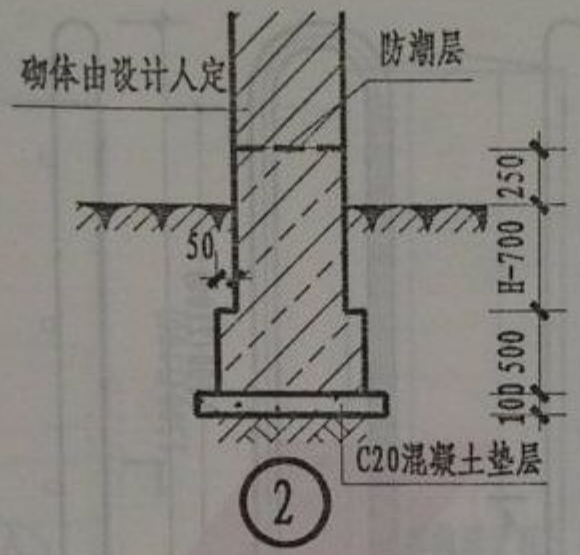
钢门柱基础

注：1. 钢门柱材料均采用型钢．钢材焊接采用T42焊条，
焊缝为断续焊，焊缝高度6．
2. 钢门柱均刷防锈漆一道，调和漆二道，颜色由设计人定．
3. 门轴油漆前焊于门上．
4. 严寒和寒冷地区在垫层下部加300厚中粗砂防冻胀层．

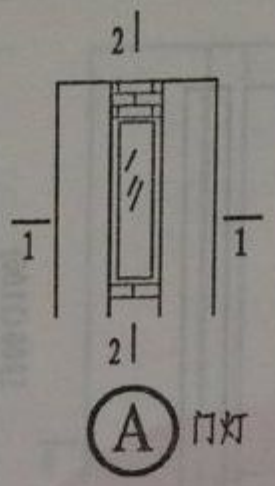
钢门柱	图集号	12J9-1
	页次	52



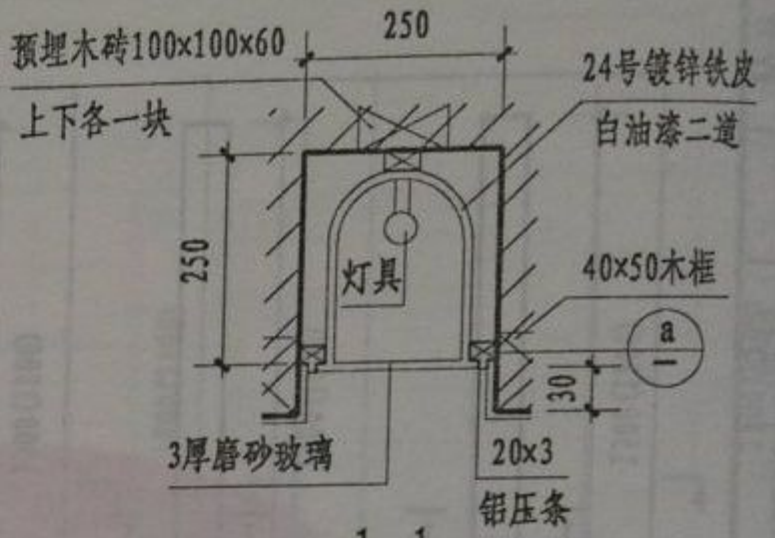
①



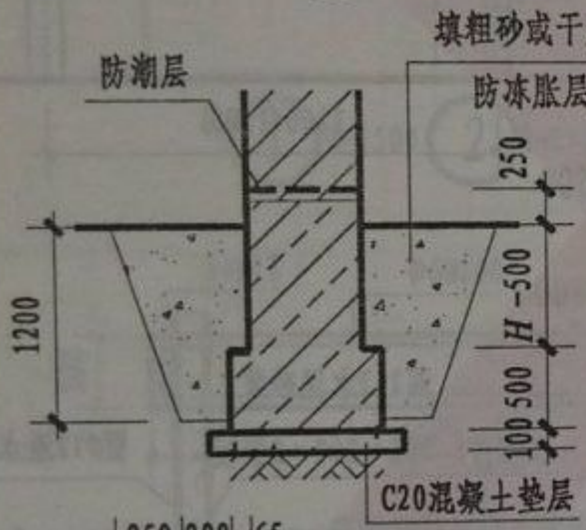
②



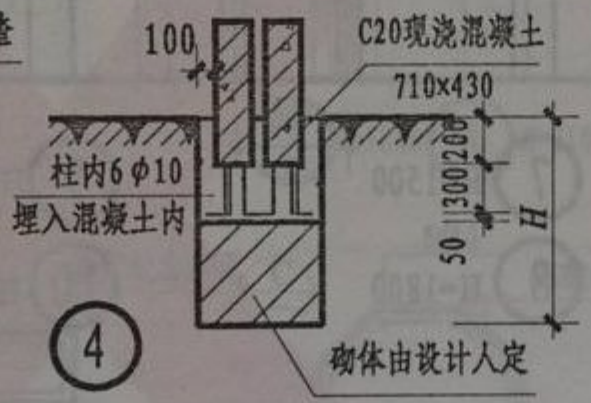
Ⓐ 门灯



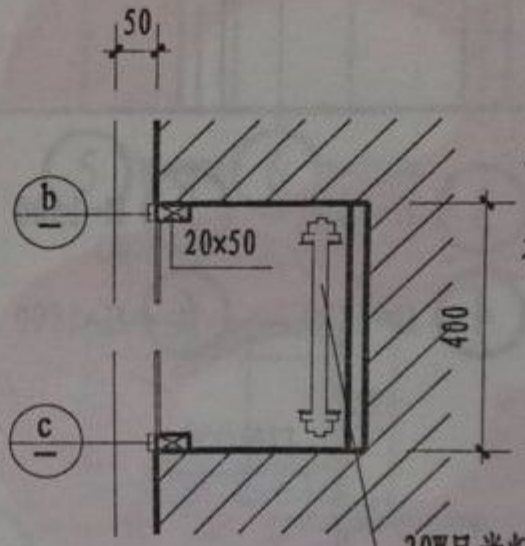
1－1



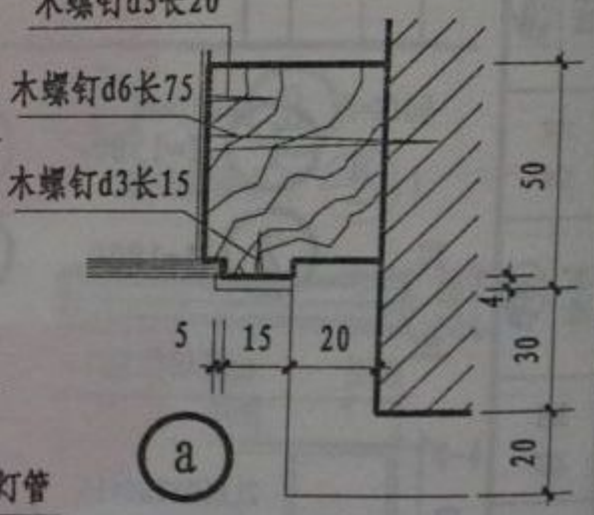
③



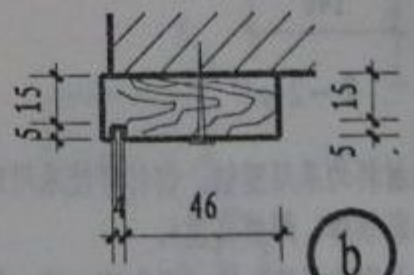
④



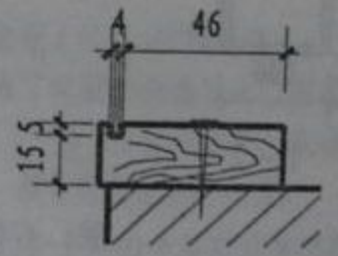
2－2



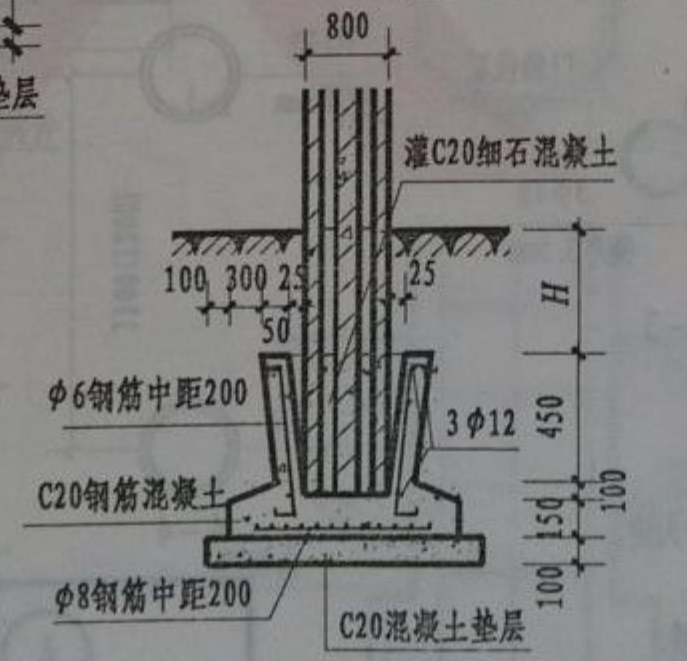
a



b



c

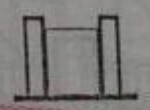
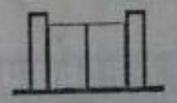
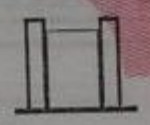
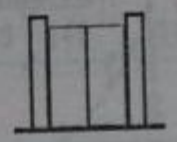


⑤

注：1. 基础宽度由上部选用的门柱定.
2. 图中H＞冰冻线深度.

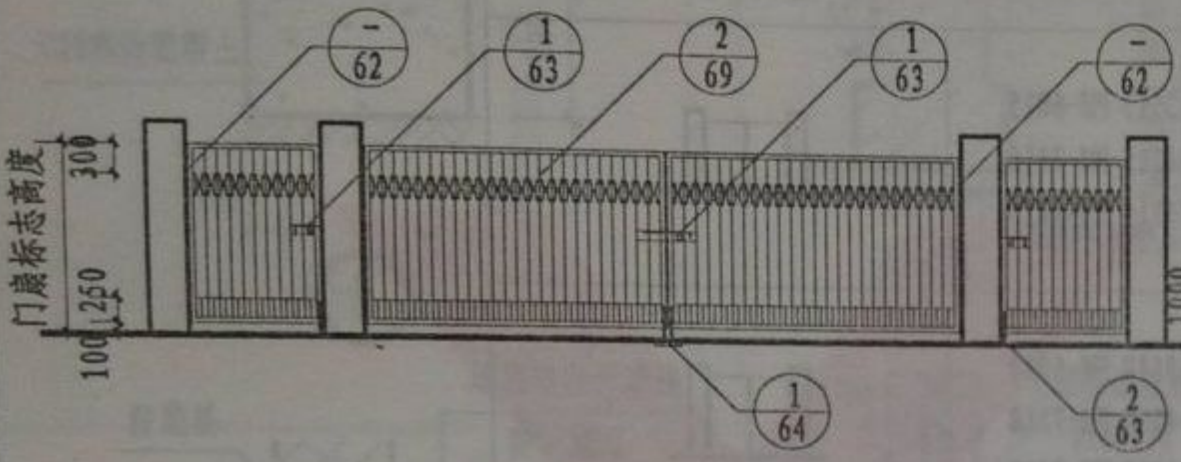
门柱基础　门灯详图

图集号	12J9-1
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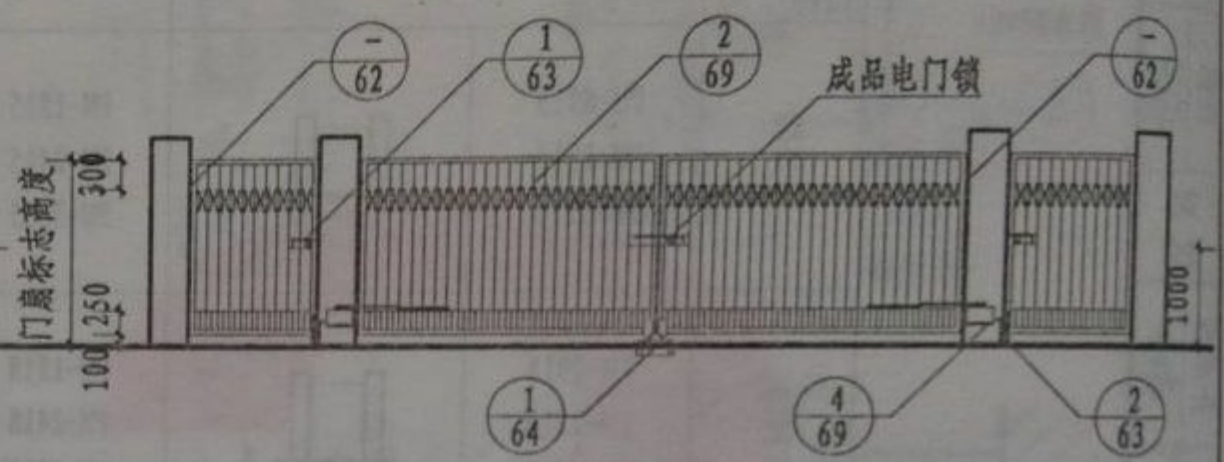
门高 \ 门洞宽	900-1500		1800-8400	
1500	PM-0915 PM-1215 PM-1515		PM-1815 PM-3615 PM-6015 PM-2415 PM-4215 PM-7215 PM-3015 PM-4815 PM-8415	
1800	PM-0918 PM-1218 PM-1518		PM-1818 PM-3618 PM-6018 PM-2418 PM-4218 PM-7218 PM-3018 PM-4818 PM-8418	
2100	PM-0921 PM-1221 PM-1521		PM-1821 PM-3621 PM-6021 PM-2421 PM-4221 PM-7221 PM-3021 PM-4821 PM-8421	
2400	PM-0924 PM-1224 PM-1524		PM-1824 PM-3624 PM-6024 PM-2424 PM-4224 PM-7224 PM-3024 PM-4824 PM-8424	
平面				

注：PM-0915 09表示大门宽度900mm，15表示大门高度1500mm

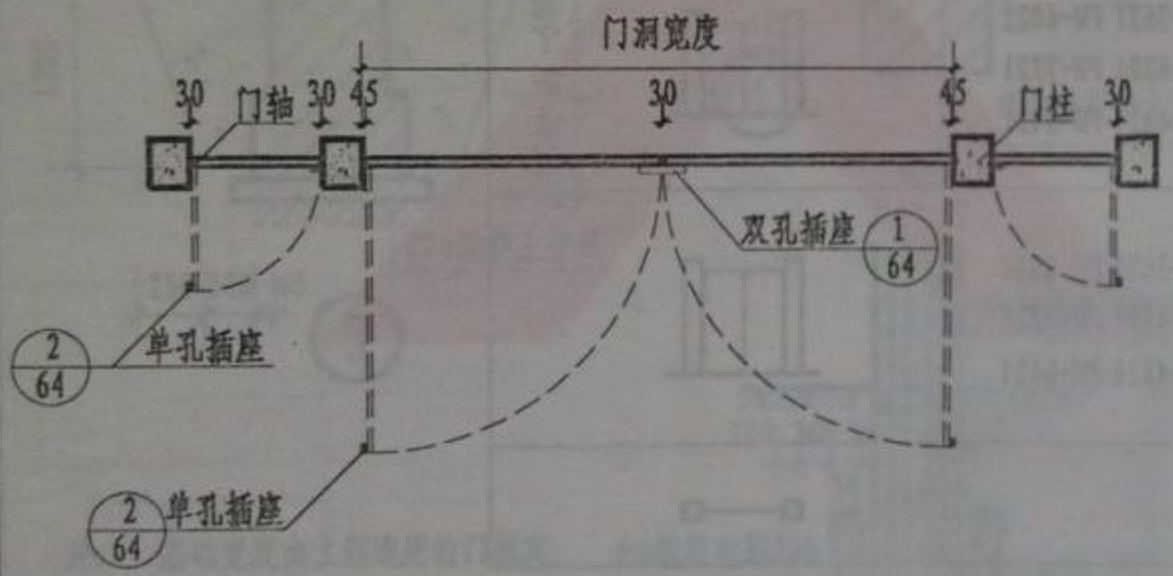
平开围墙大门选用图	图集号	12J9-1
	页次	54



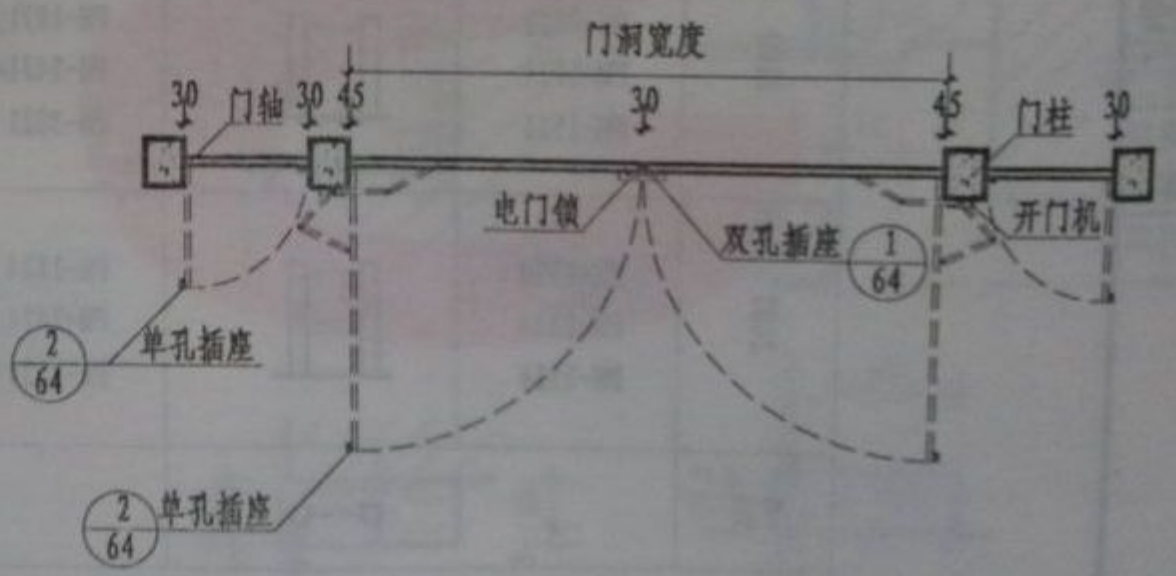
内立面图



内立面图

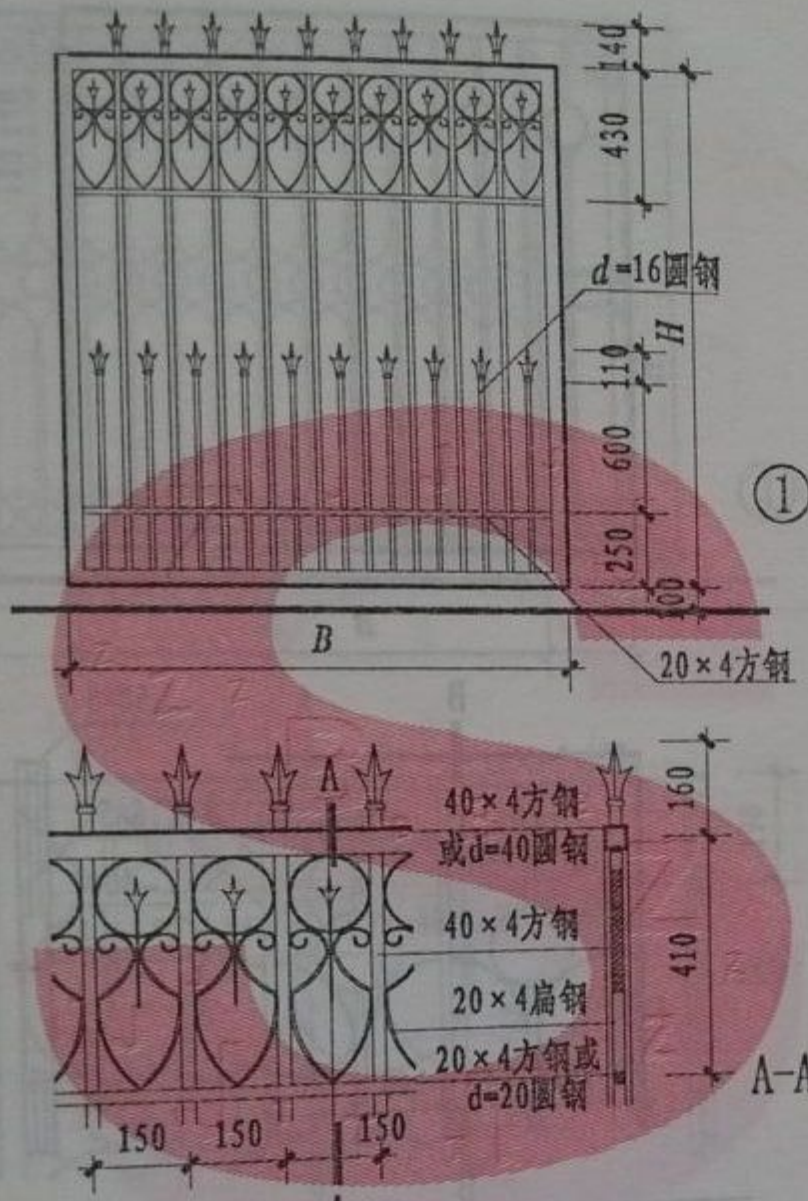


① 平开围墙大门平面图

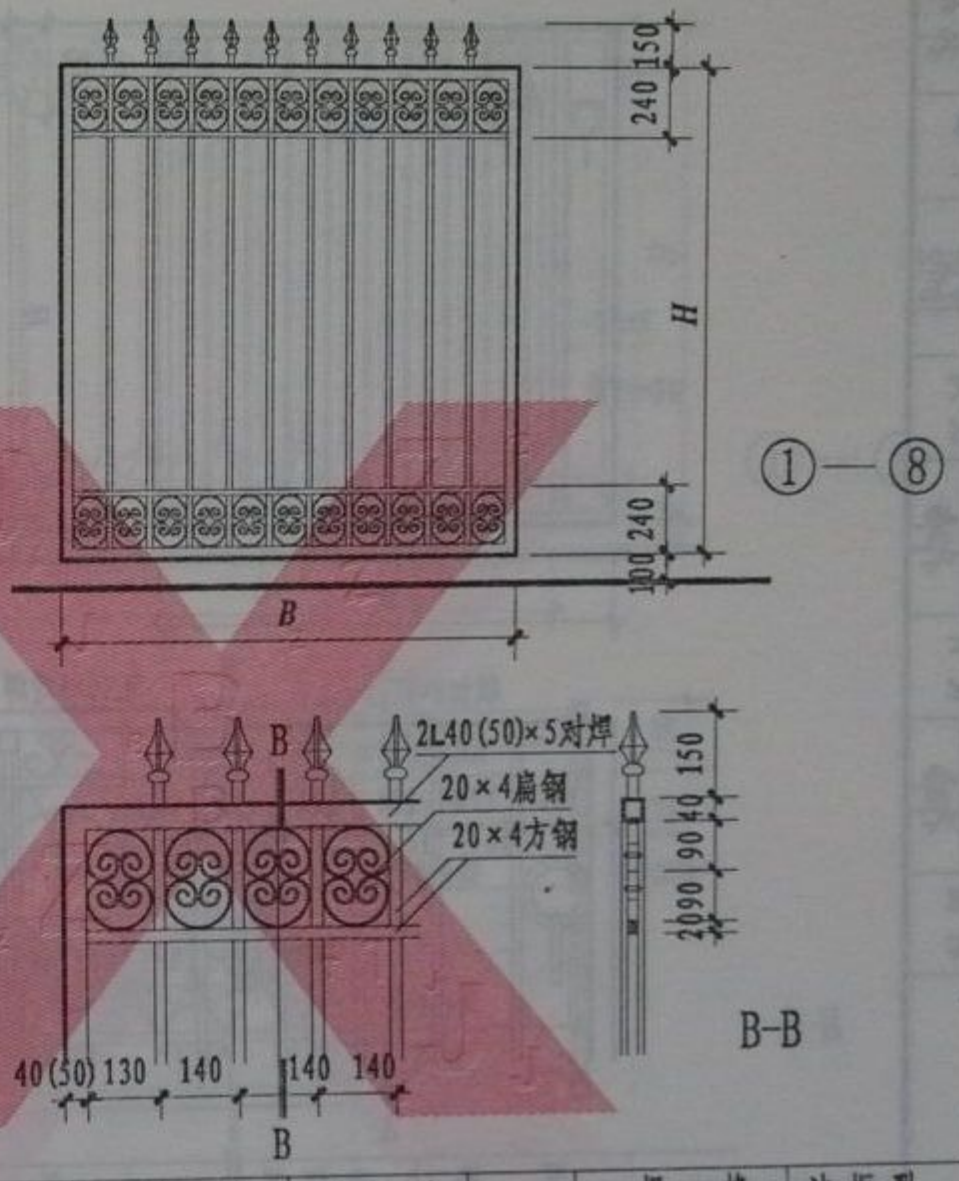


② 电动平开围墙大门平面图

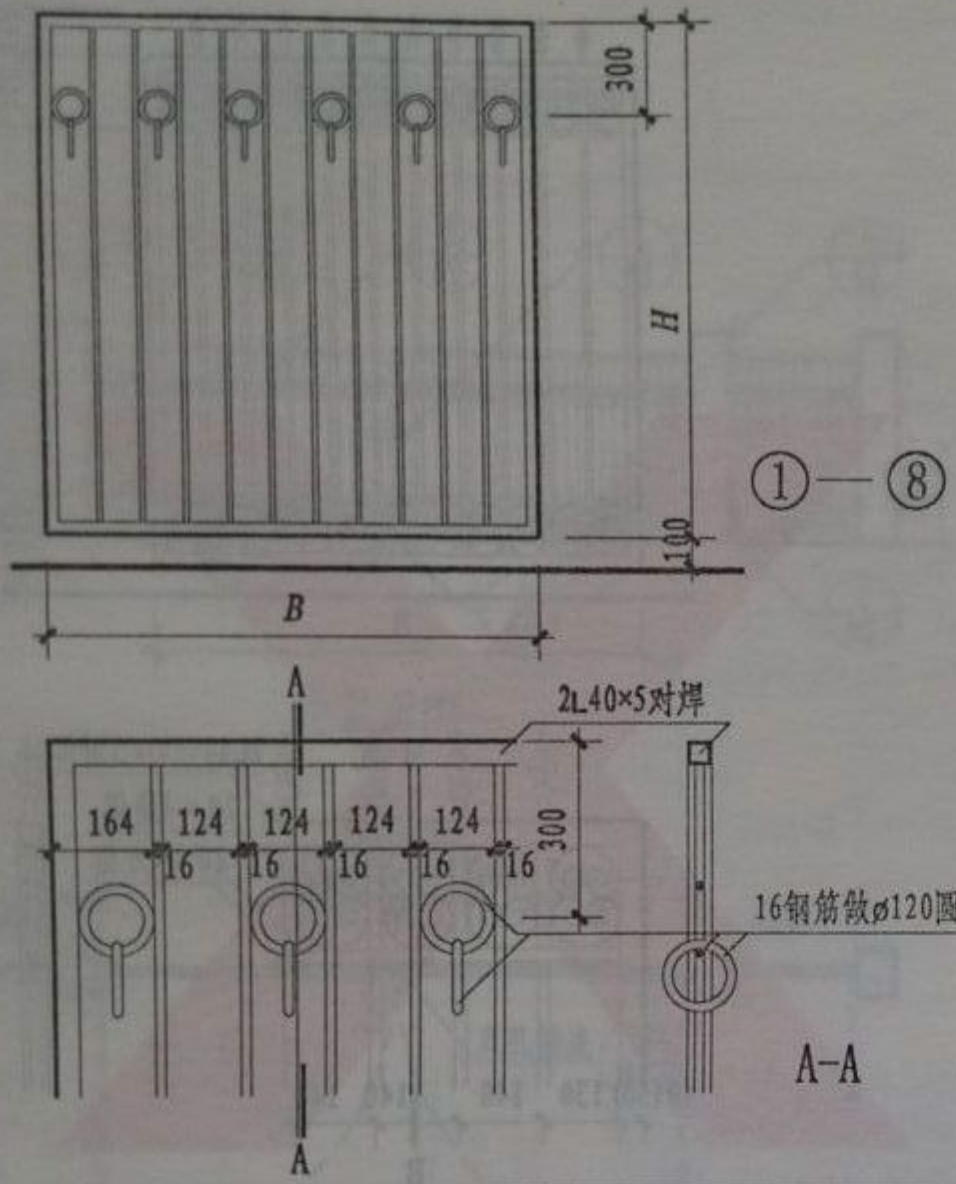
平开围墙大门平、立面图	图集号	12J9-1
	页次	55

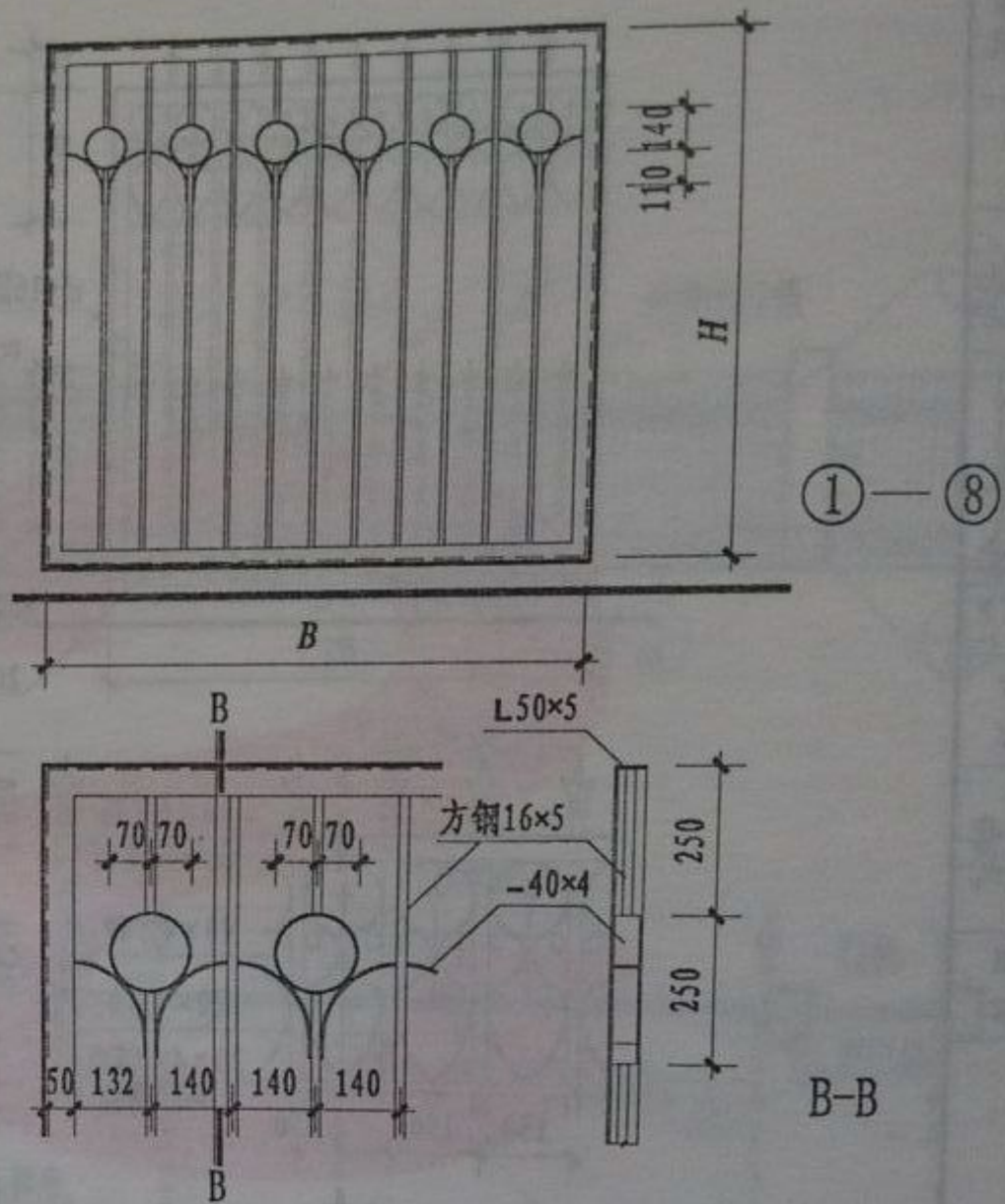


编号	规格		边框型钢规格
	B	H	
①	1110	1400	40×40方钢或角钢对焊或d=40圆钢
②	1410	1400	
③	1710	1400	
④	2010	1400	
⑤	1110	1700	
⑥	1410	1700	
⑦	1710	1700	
⑧	2010	1700	



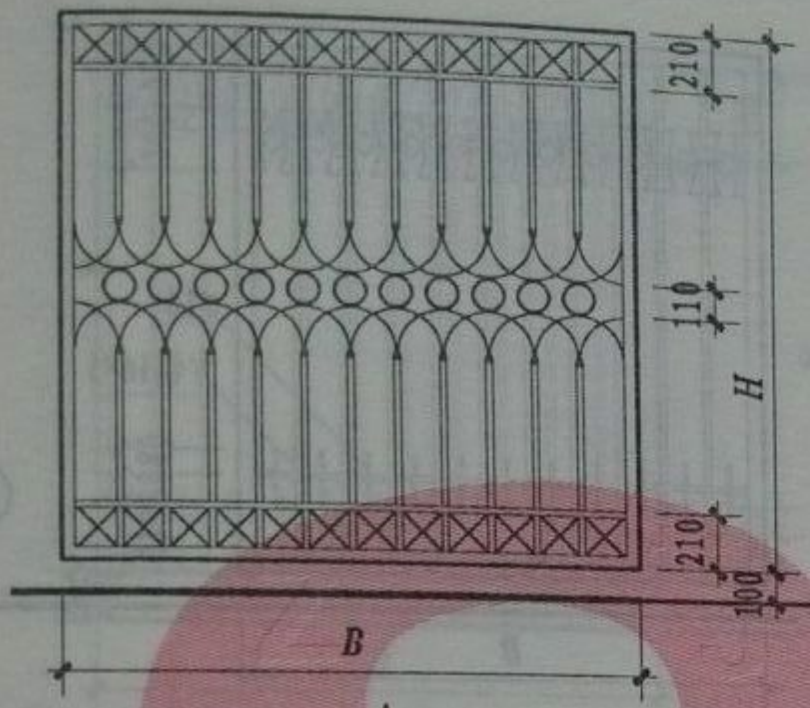
编号	规格		边框型钢规格
	B	H	
①	1044	1400	40(50)方钢或L40(50)对焊
②	1324	1400	
③	1604	1400	
④	1884	1400	
⑤	1044	1700	
⑥	1324	1700	
⑦	1604	1700	
⑧	1884	1700	



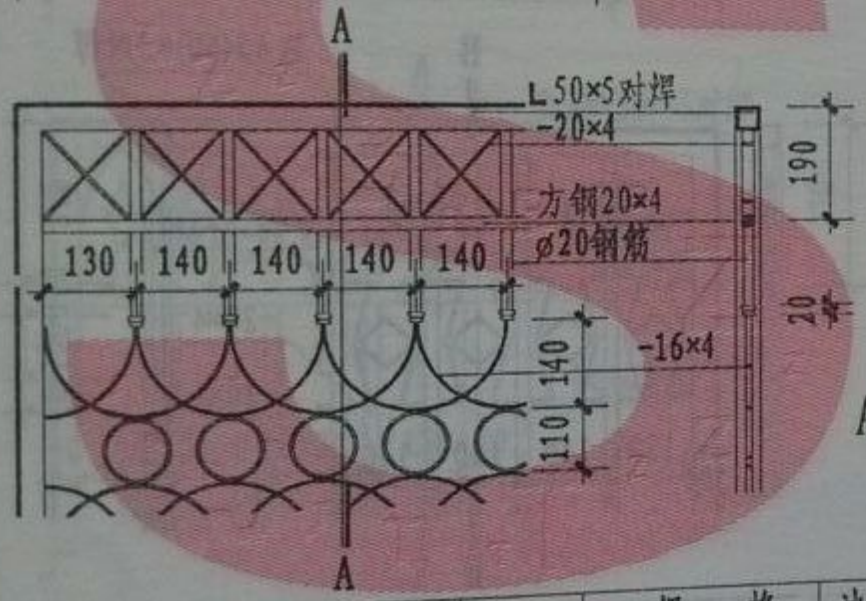


编号	规格 B	规格 H	边框型钢规格	编号	规格 B	规格 H	边框型钢规格
①	1044	1400	40×40方钢（角钢对焊）或d=40圆钢	⑤	1044	1700	40×40方钢（角钢对焊）或d=40圆钢
②	1324	1400		⑥	1324	1700	
③	1604	1400		⑦	1604	1700	
④	1884	1400		⑧	1884	1700	

编号	规格 B	规格 H	边框型钢规格	编号	规格 B	规格 H	边框型钢规格
①	1064	1400	50×5角钢（角钢对焊）或d=40圆钢	⑤	1064	1700	50×5角钢（角钢对焊）或d=40圆钢
②	1344	1400		⑥	1344	1700	
③	1624	1400		⑦	1624	1700	
④	1904	1400		⑧	1904	1700	

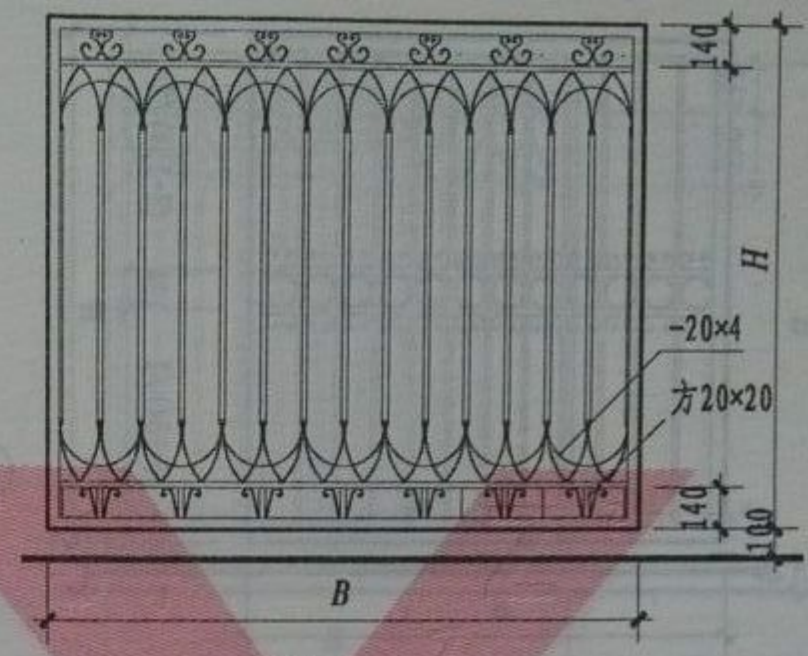


①—⑧

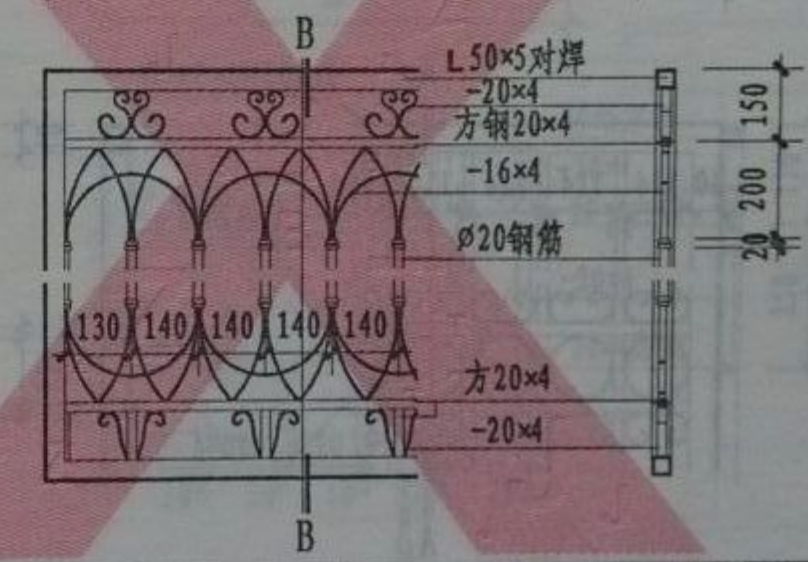


A-A

编号	规格 B	规格 H	边框型钢规格
①	1200	1400	50×5角钢（角钢对焊）或 d=40圆钢
②	1480	1400	
③	1760	1400	
④	2040	1400	
⑤	1200	1700	
⑥	1480	1700	
⑦	1760	1700	
⑧	2040	1700	



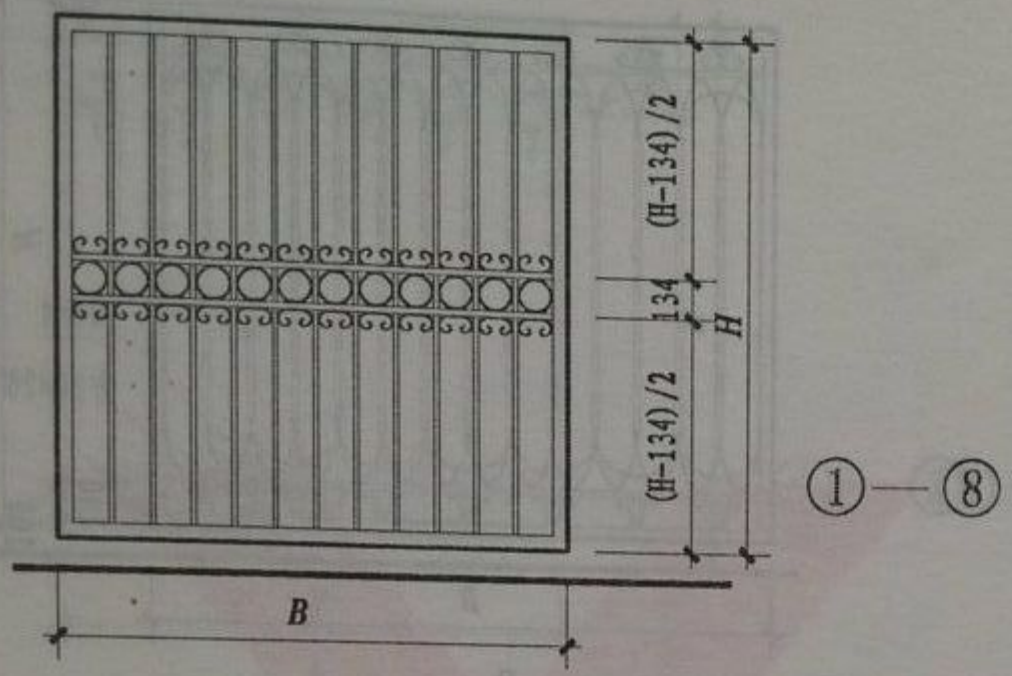
①—⑧

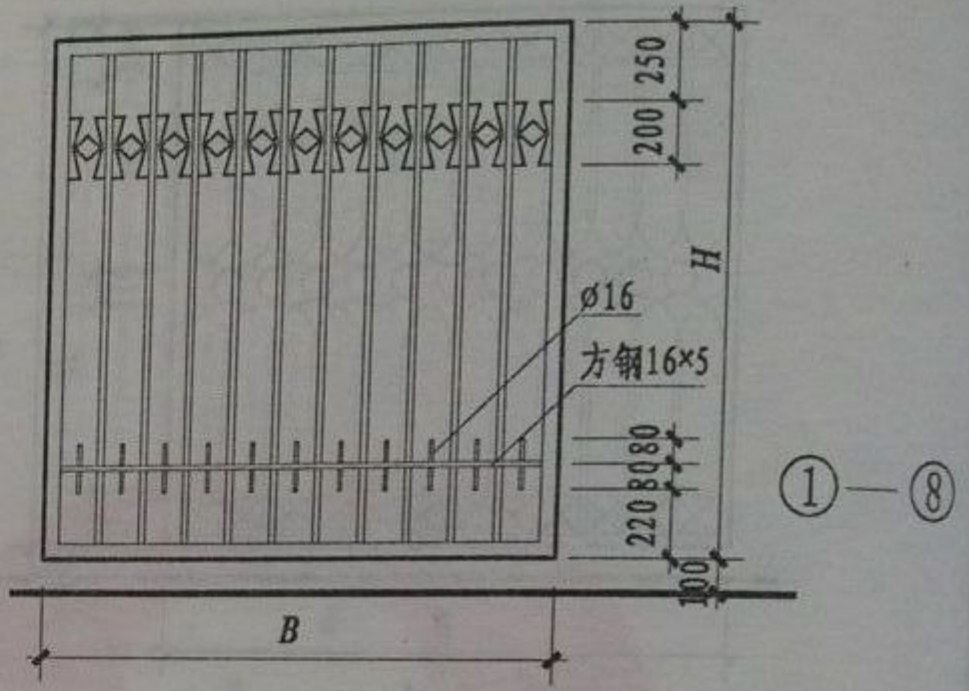


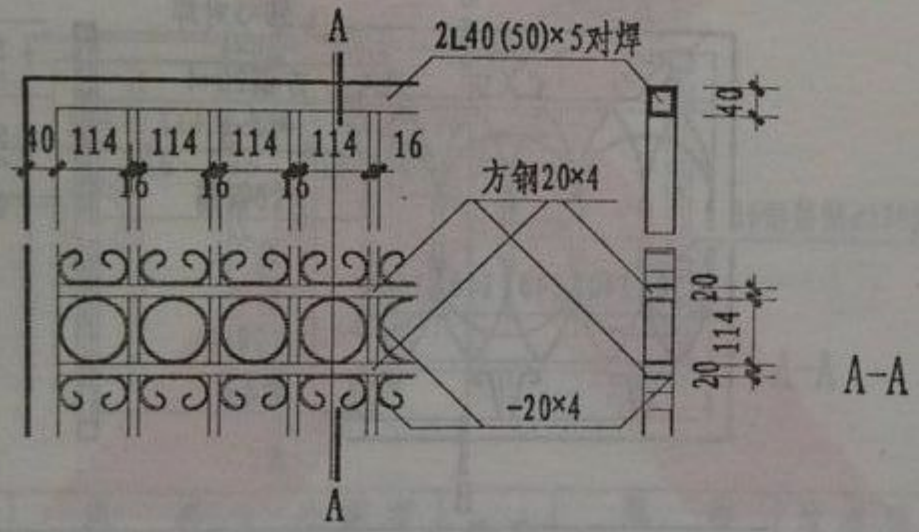
B-B

编号	规格 B	规格 H	边框型钢规格
①	1200	1400	50×5角钢（角钢对焊）或 d=40圆钢
②	1480	1400	
③	1760	1400	
④	2040	1400	
⑤	1200	1700	
⑥	1480	1700	
⑦	1760	1700	
⑧	2040	1700	

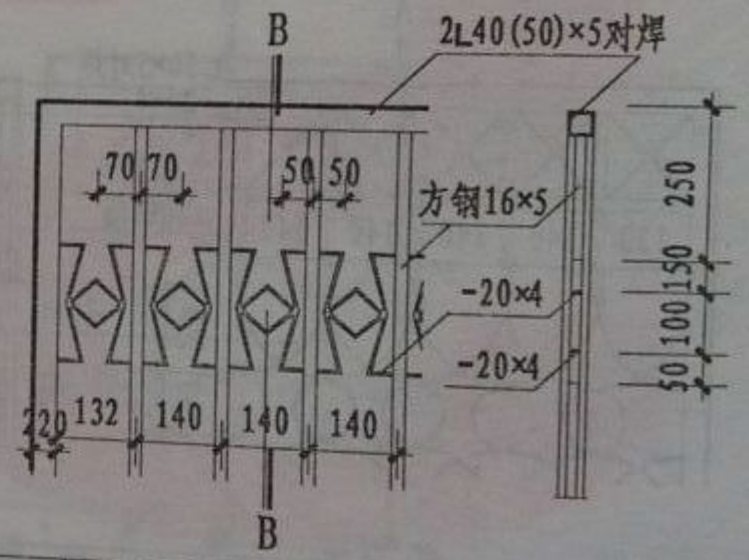
围墙大门花饰选用图(三)	图集号	12J9-1
	页次	58







A-A



B-B

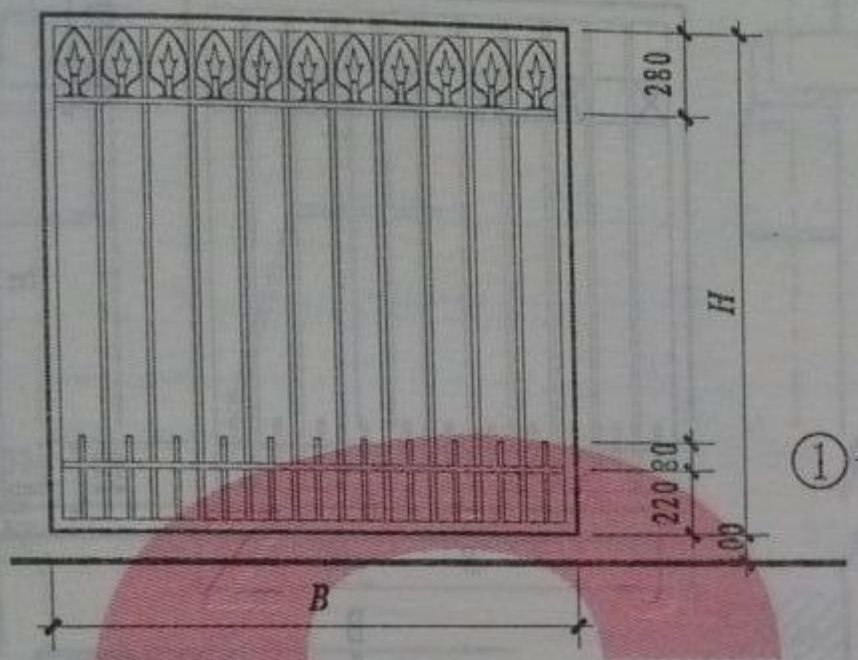
编号	规格		边框型钢规格	编号	规格		边框型钢规格
	B	H			B	H	
①	1104	1400	40(50)×5方钢（角钢对焊）	⑤	1104	1700	40(50)×5方钢（角钢对焊）
②	1364	1400		⑥	1364	1700	
③	1624	1400		⑦	1624	1700	
④	1884	1400		⑧	1884	1700	

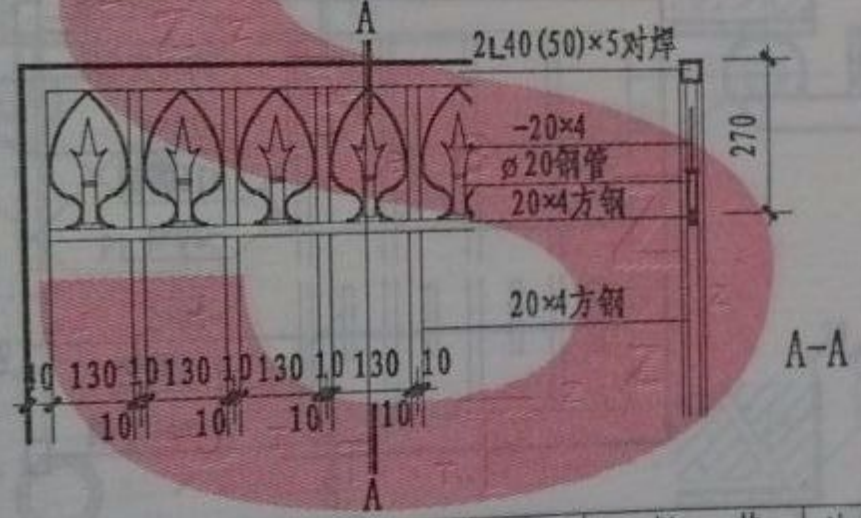
编号	规格		边框型钢规格	编号	规格		边框型钢规格
	B	H			B	H	
①	1044	1400	40(50)×5方钢（角钢对焊）	⑤	1044	1700	40(50)×5方钢（角钢对焊）
②	1324	1400		⑥	1324	1700	
③	1604	1400		⑦	1604	1700	
④	1884	1400		⑧	1884	1700	

围墙大门花饰选用图(四)

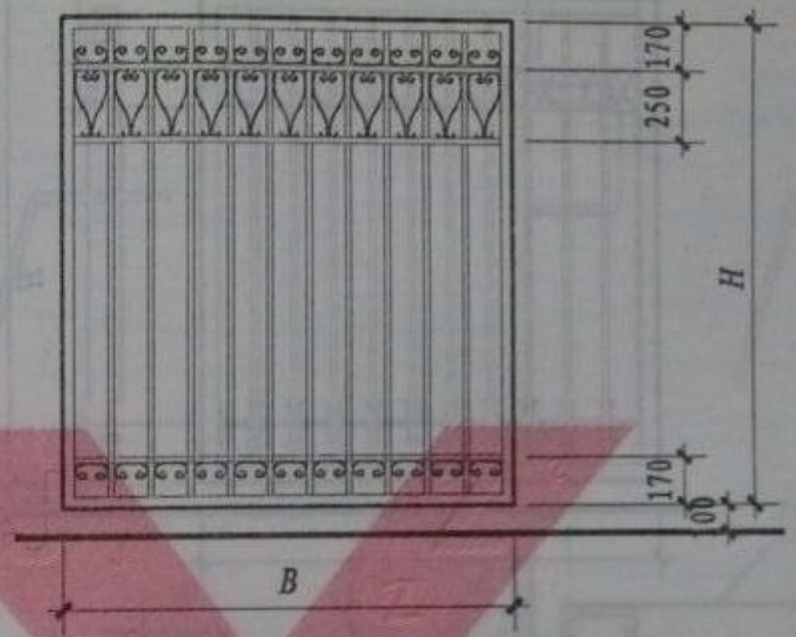
图集号	12J9-1
页次	59

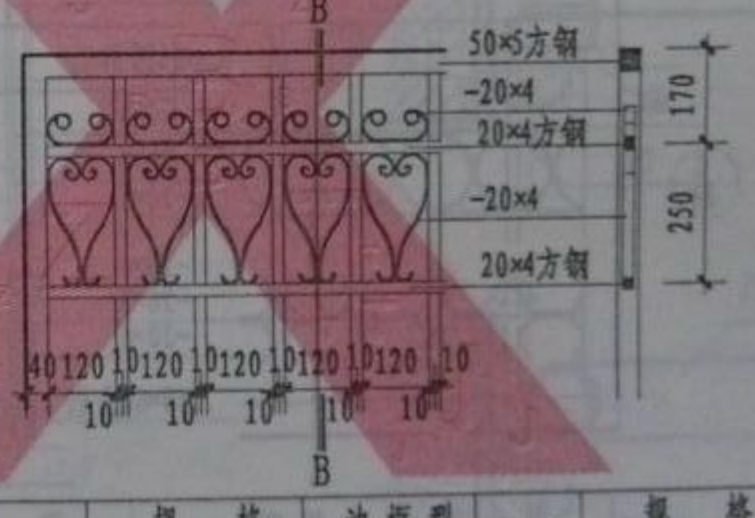
设计	齐卓彦	校对	张恒	审核	郭彦
制图					





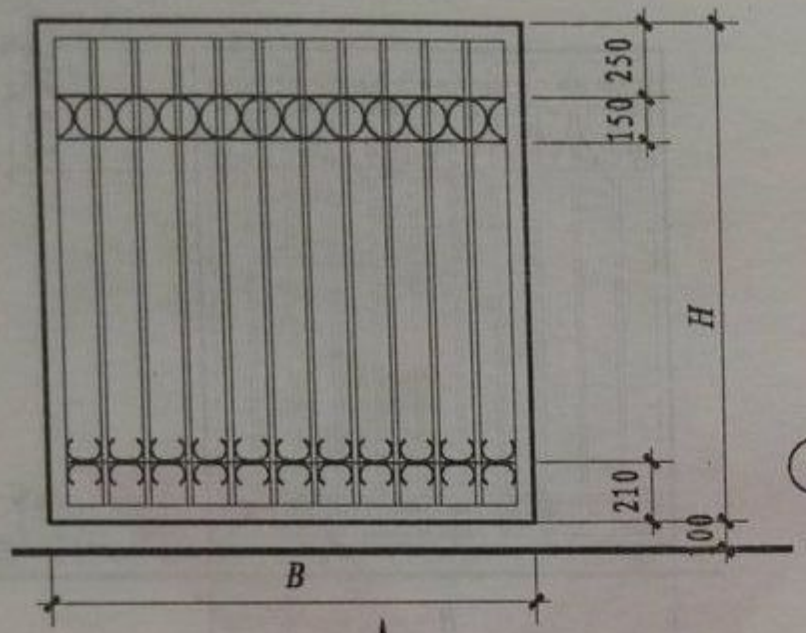
编号	规格		边框型钢规格
	B	H	
①	1110	1400	40(50)×5方钢或角钢对焊或d=40圆钢
②	1410	1400	
③	1710	1400	
④	2010	1400	
⑤	1110	1700	40(50)×5方钢或角钢对焊或d=40圆钢
⑥	1410	1700	
⑦	1710	1700	
⑧	2010	1700	



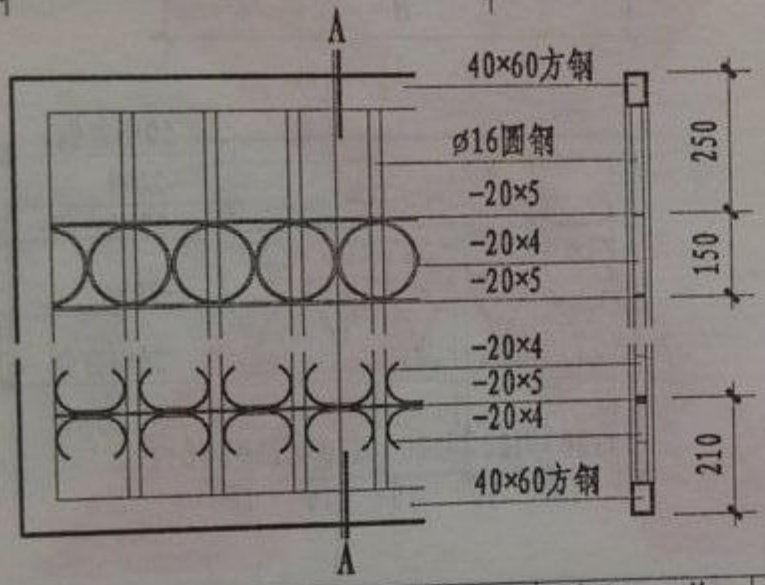


编号	规格		边框型钢规格
	B	H	
①	1040	1400	40(50)×5方钢（角钢对焊）
②	1320	1400	
③	1600	1400	
④	1880	1400	
⑤	1044	1700	40(50)×5方钢（角钢对焊）
⑥	1324	1700	
⑦	1604	1700	
⑧	1884	1700	

围墙大门花饰选用图(五)	图集号	12J9-1
	页次	60

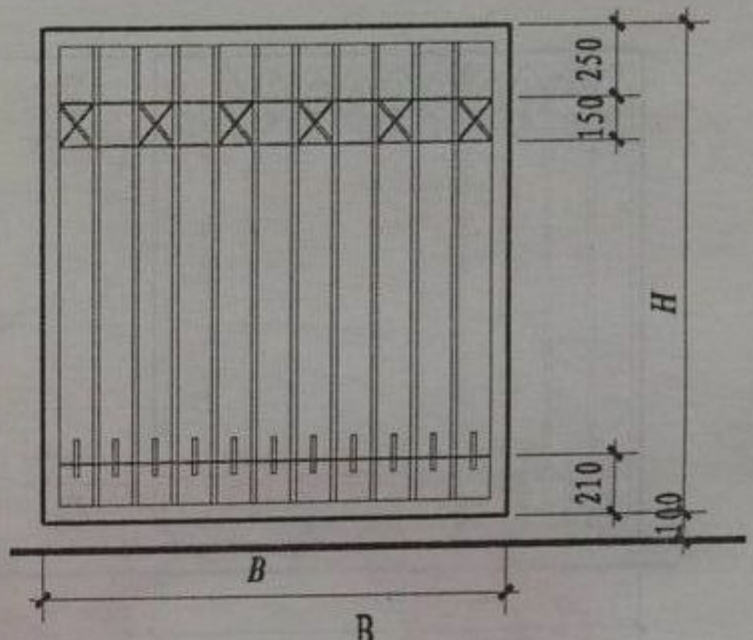


①—⑧

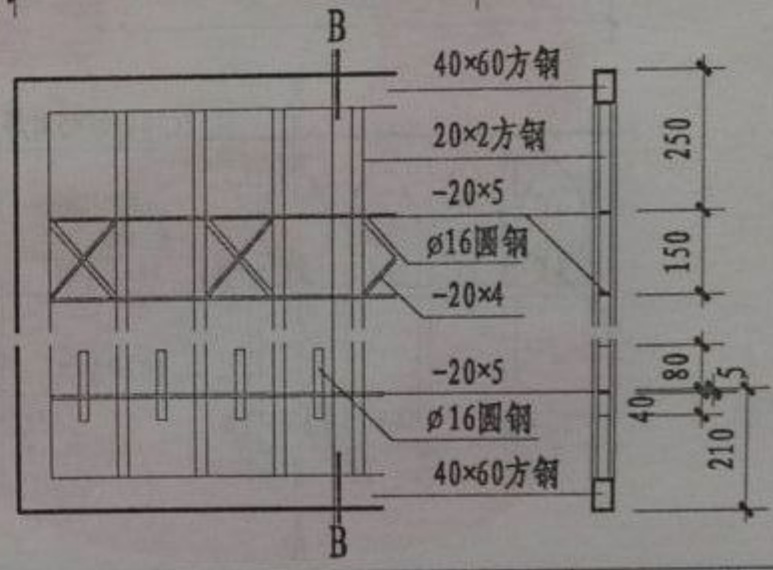


A-A

编号	规格 B	规格 H	边框型钢规格	编号	规格 B	规格 H	边框型钢规格
①	1044	1400	40×60方钢（角钢对焊）	⑤	1044	1700	40×60方钢（角钢对焊）
②	1324	1400		⑥	1324	1700	
③	1604	1400		⑦	1604	1700	
④	1884	1400		⑧	1884	1700	



①—⑧



B-B

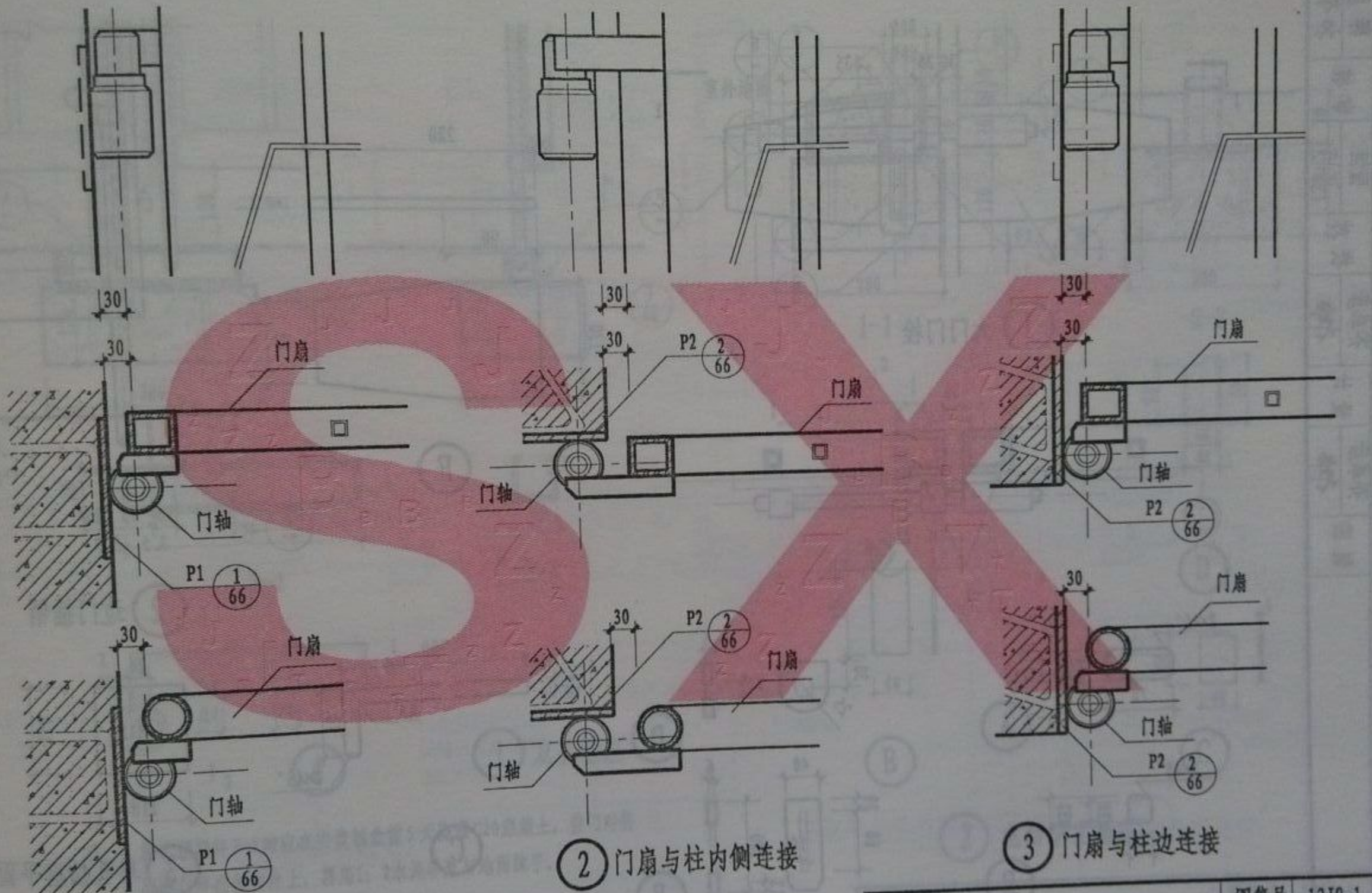
编号	规格 B	规格 H	边框型钢规格	编号	规格 B	规格 H	边框型钢规格
①	1044	1400	40×60方钢（角钢对焊）	⑤	1044	1700	40×60方钢（角钢对焊）
②	1324	1400		⑥	1324	1700	
③	1604	1400		⑦	1604	1700	
④	1884	1400		⑧	1884	1700	

围墙大门花饰选用图(六)

图集号 12J9-1

页次 61

制图 齐卓彦 设计 校对 张恒 审核 郭彦

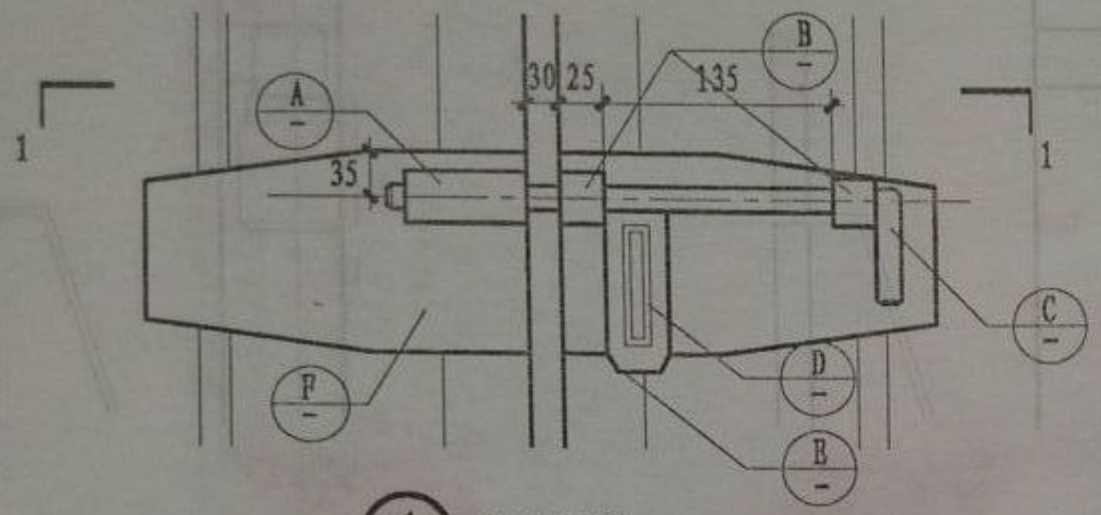


① 门扇与柱中连接

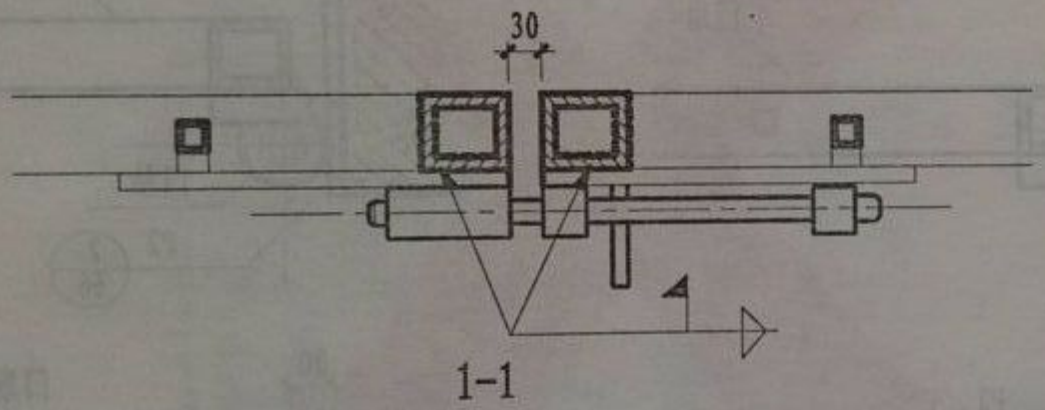
② 门扇与柱内侧连接

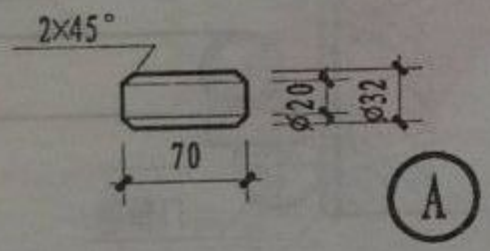
③ 门扇与柱边连接

围墙大门门轴节点图	图集号	12J9-1
	页次	62

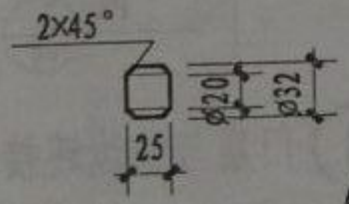


① 大门门栓

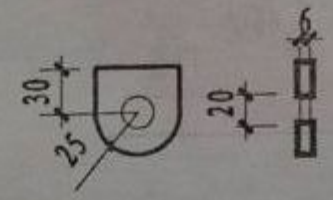




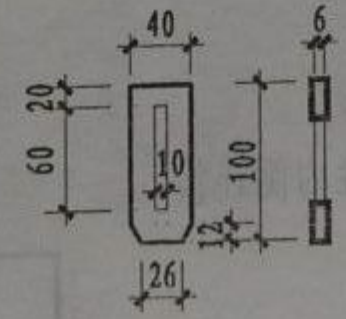
A



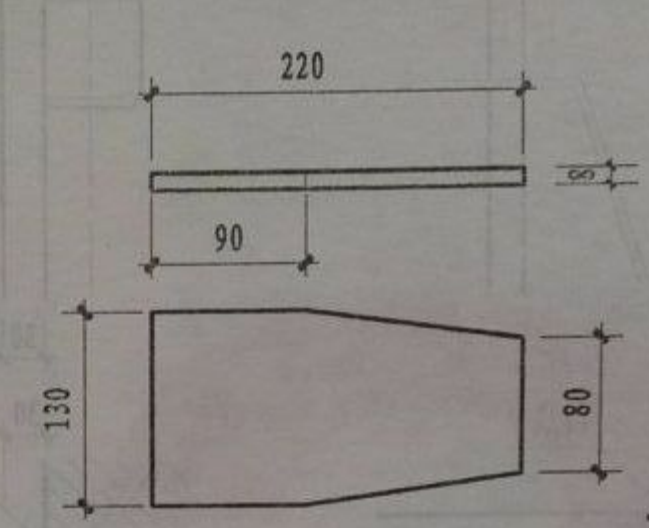
B



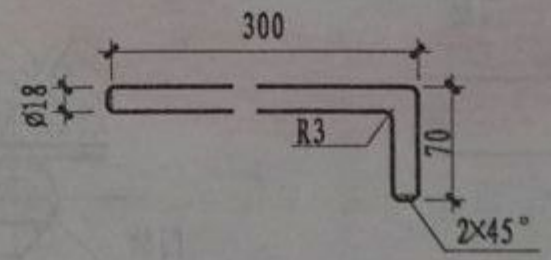
D



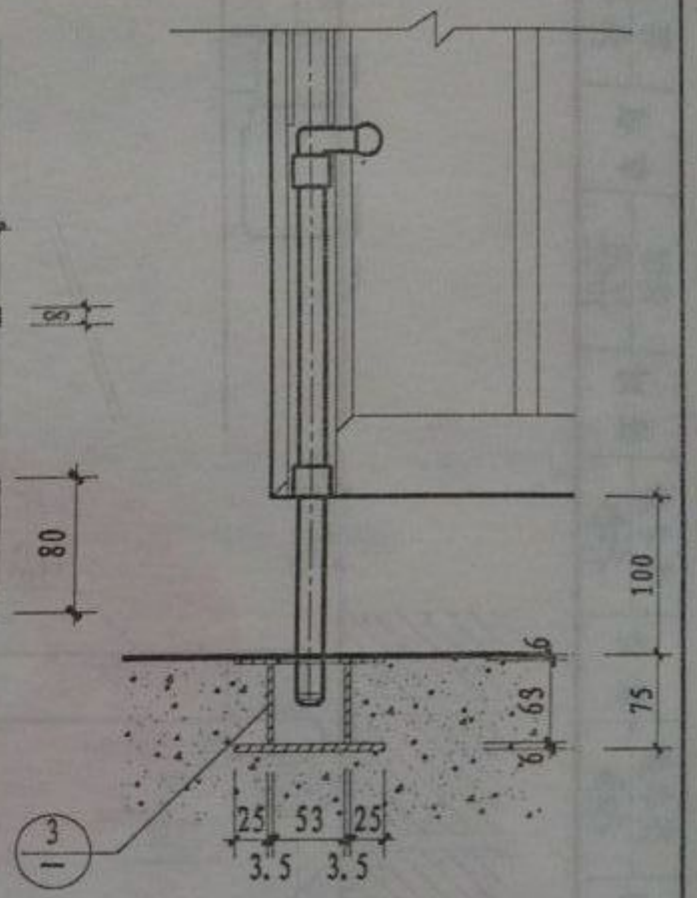
E



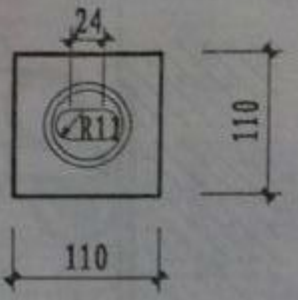
F



C

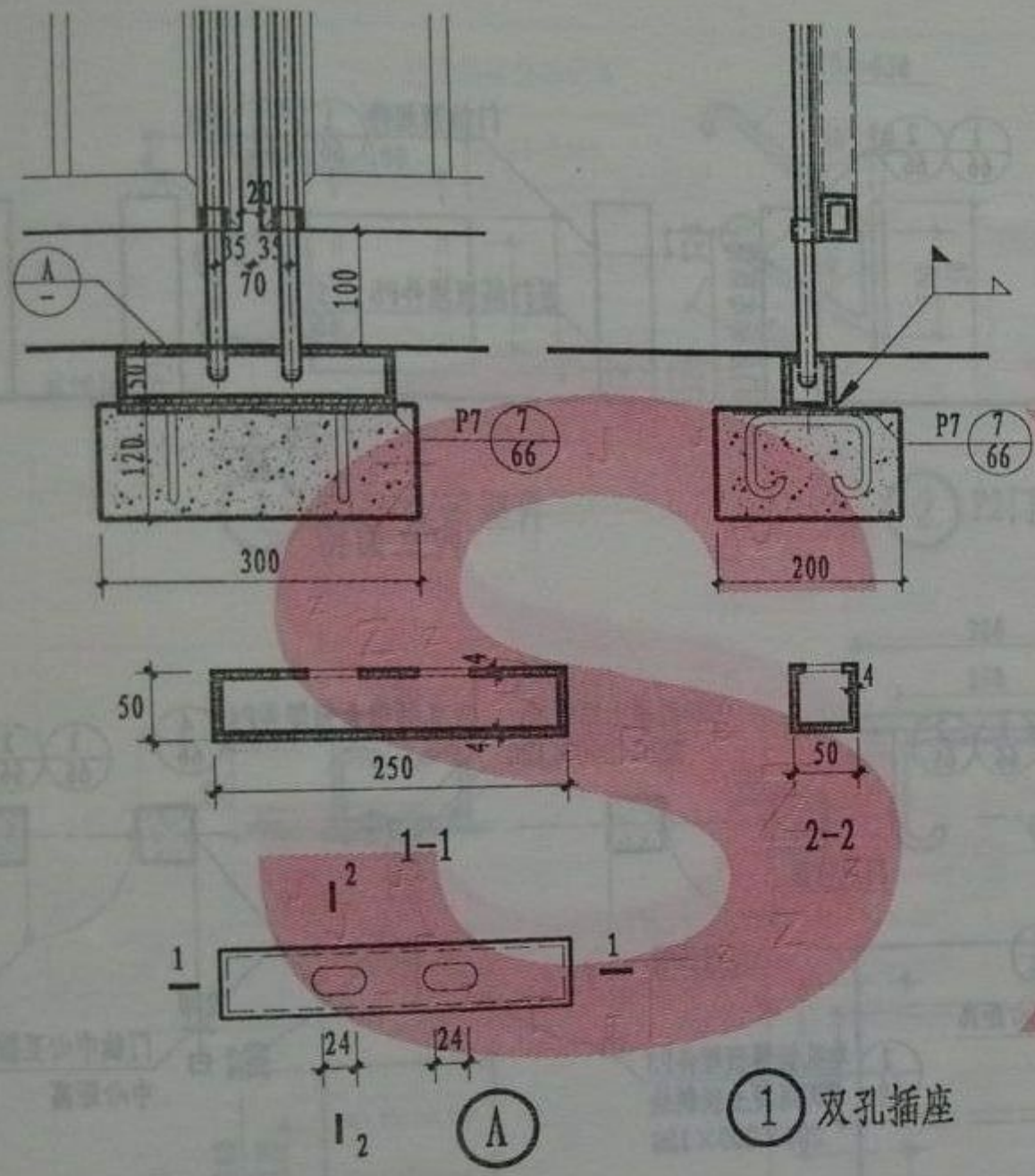


② 边门插销

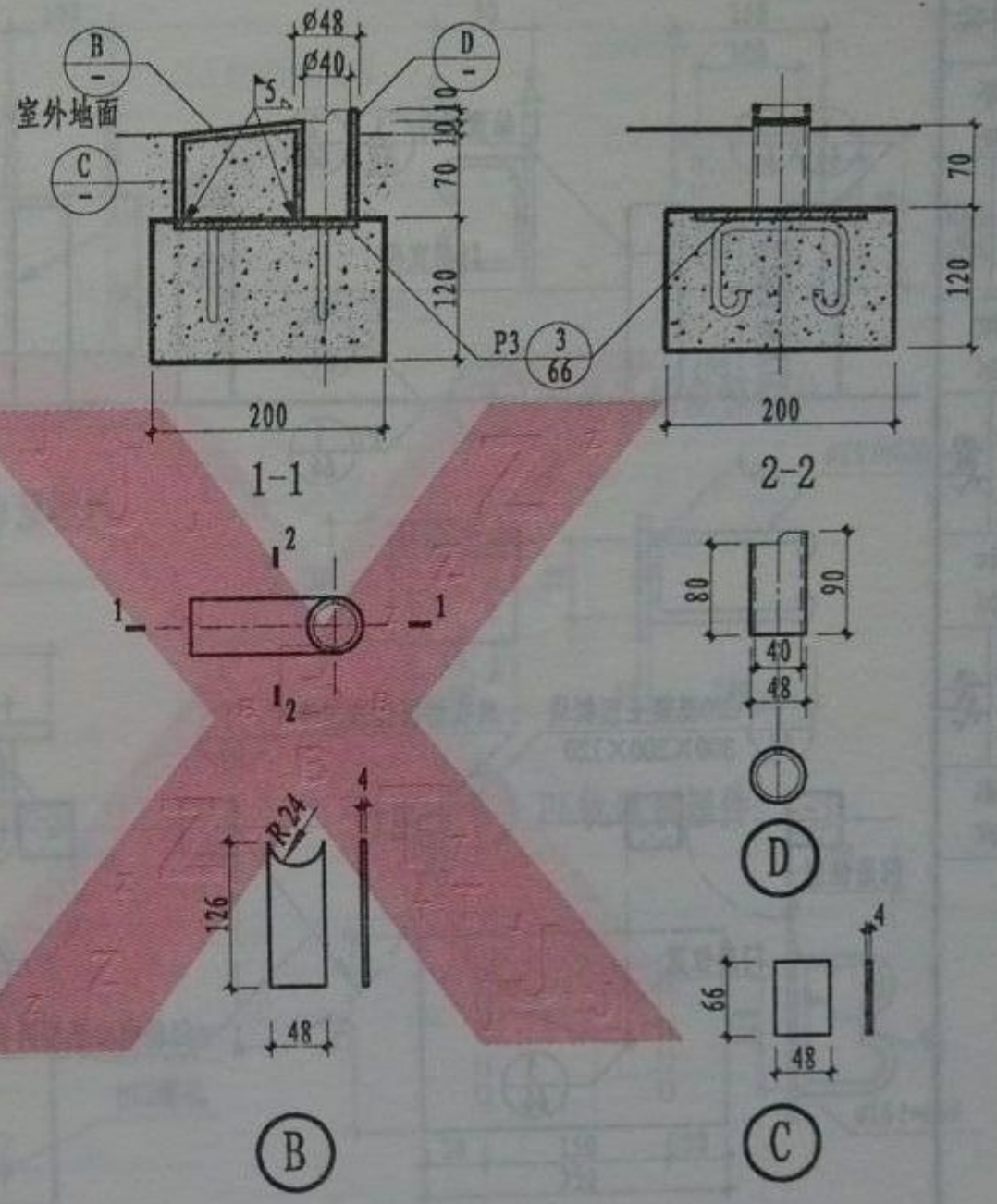


③ 单孔插座平面图

围墙大门门栓及插销、插座节点图	图集号	12J9-1
	页次	63



① 双孔插座

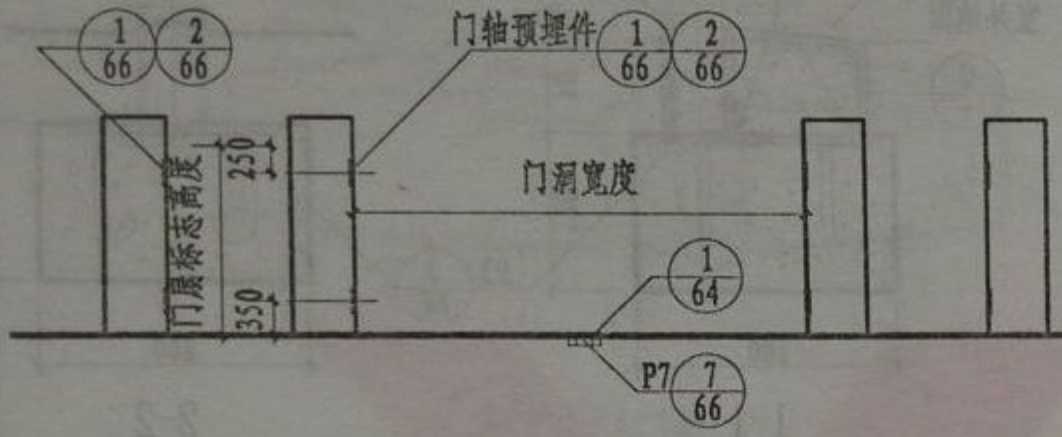


② 电动单孔插座

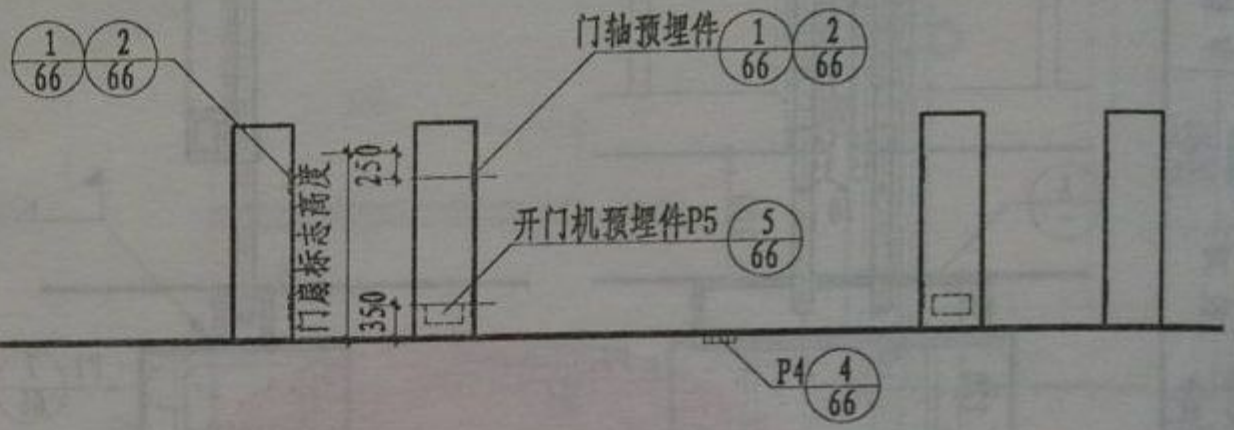
注：1. 施工预埋件P-7时应在安装插盒前5天浇灌C20混凝土，装门时将插销盒焊在预埋件上，再用1：2水泥砂浆与地面抹平.

2. 电动单孔插座材料采用Q235普通碳素钢

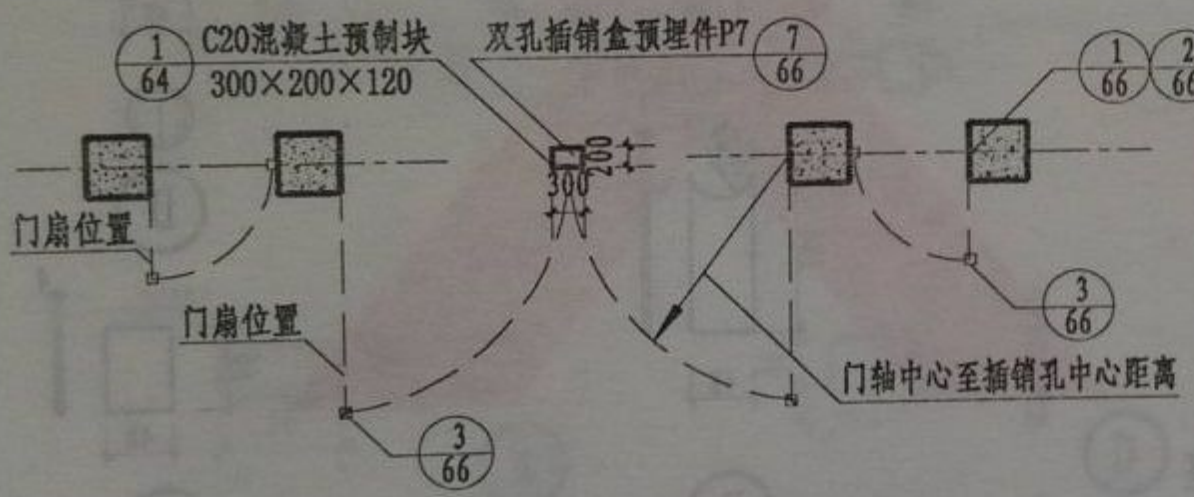
单双孔插座节点图	图集号	12J9-1
	页次	64



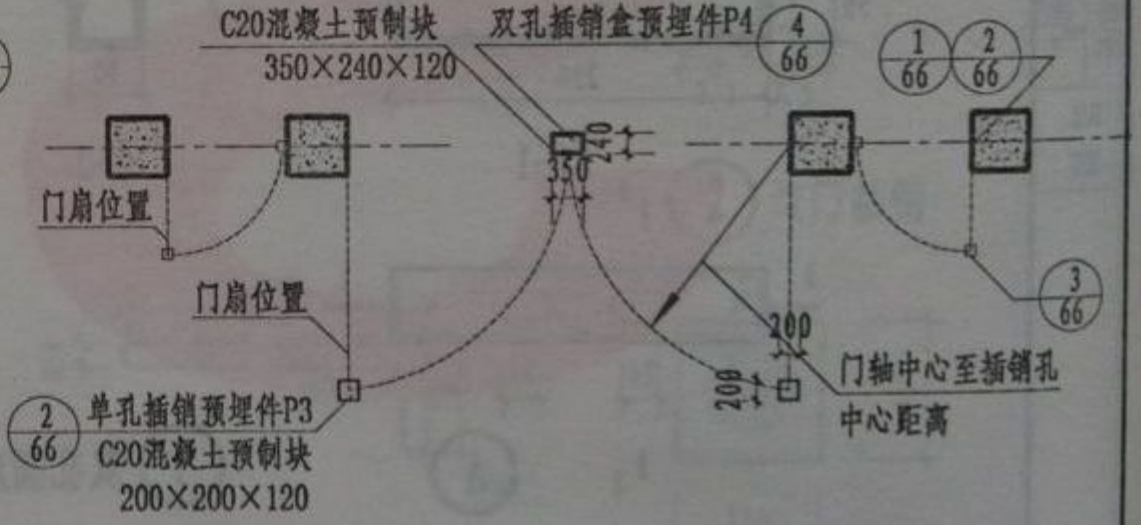
内立面图



内立面图

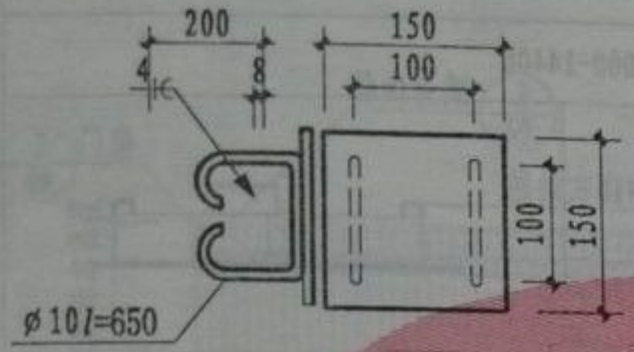


① 平开围墙大门预埋件安装平面图

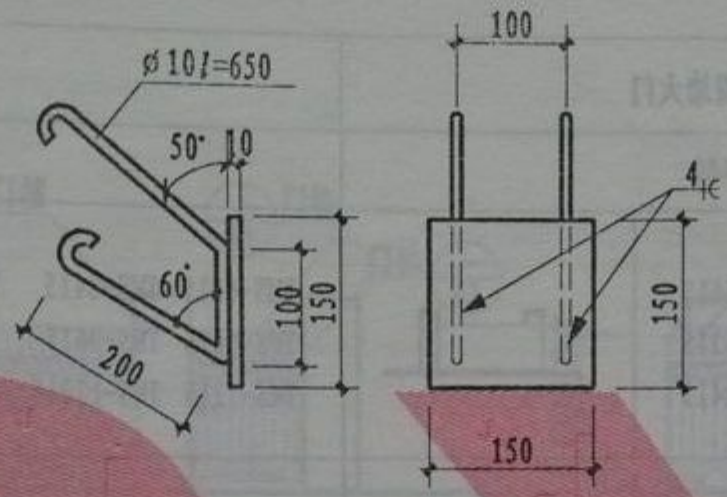


② 电动平开围墙大门预埋件安装平面图

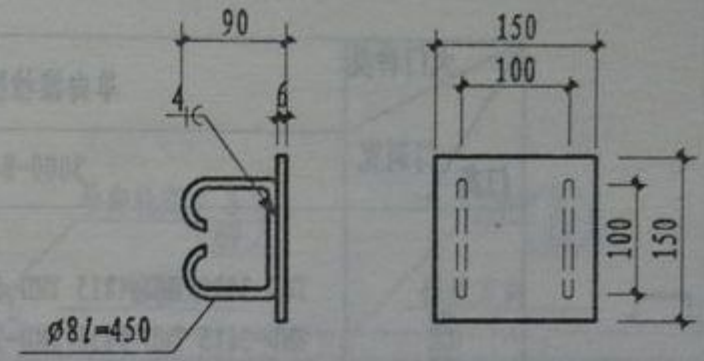
平开围墙大门预埋件安装图	图集号	12J9-1
	页次	65



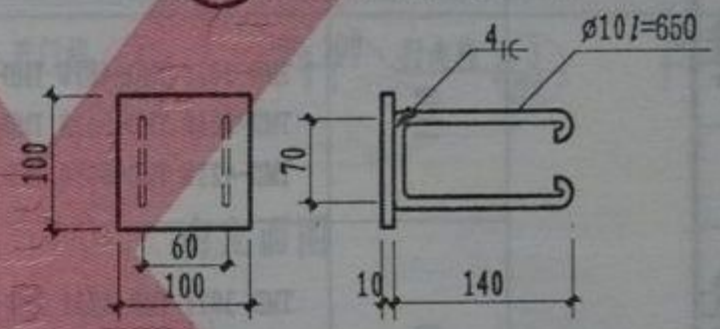
① P1门轴预埋件



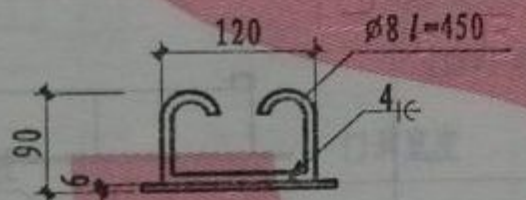
② P2门轴预埋件

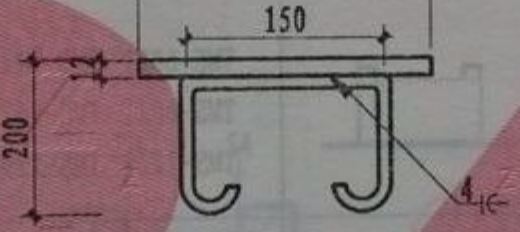


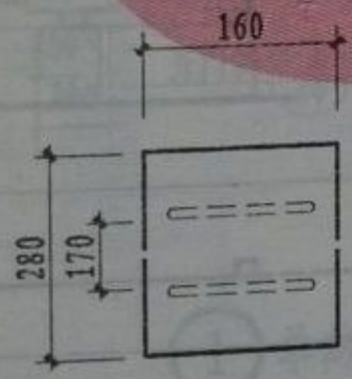
③ P3单孔插座预埋件



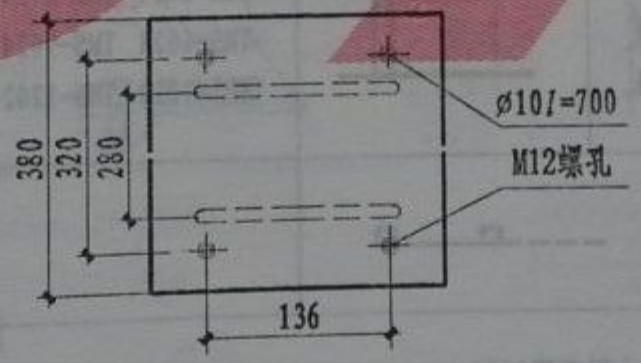
⑥ P6轨道预埋件



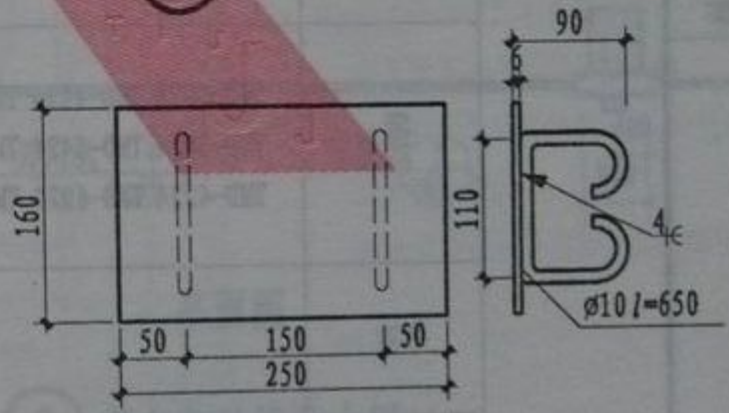




④ P4双孔插座预埋件

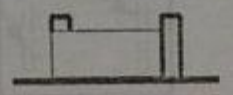
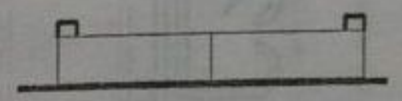
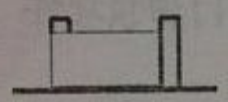
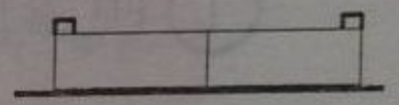
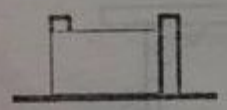
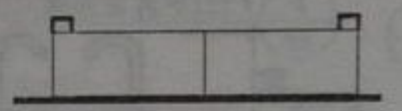
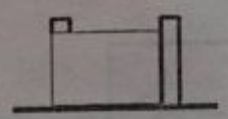
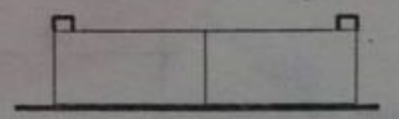
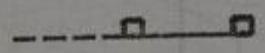
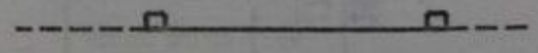


⑤ P5开门机预埋件



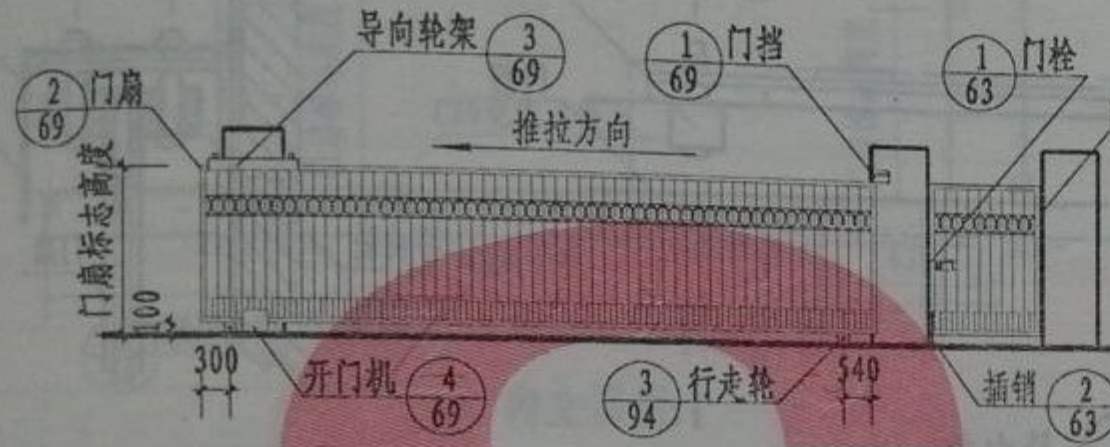
⑦ P7双孔插销盒预埋件

预埋件图	图集号	12J9-1
	页次	66

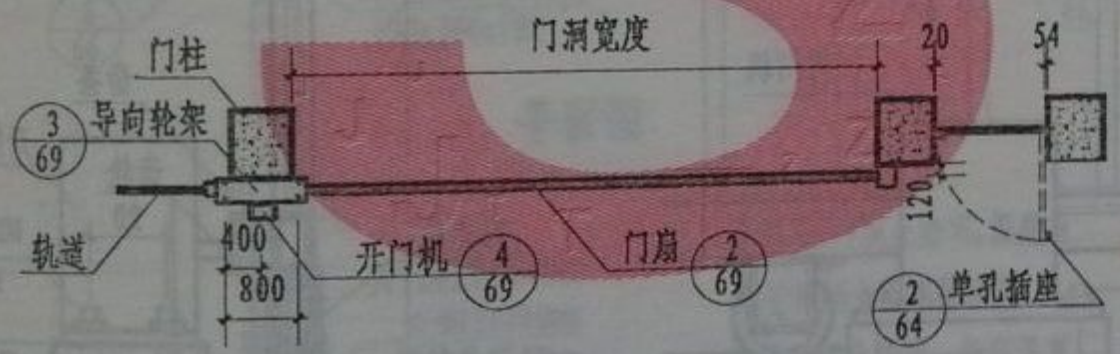
大门种类 / 门高 / 门洞宽	单向推拉围墙大门		双向推拉围墙大门	
	3000-8400		6000-14400	
1500	TMD-3015 TMD-4815 TMD-6615 TMD-3615 TMD-5415 TMD-7215 TMD-4215 TMD-6015 TMD-8415		TMS-6015 TMS-8415 TMS-14415 TMS-6615 TMS-9615 TMS-7215 TMS-12015	
1800	TMD-3018 TMD-4818 TMD-6618 TMD-3618 TMD-5418 TMD-7218 TMD-4218 TMD-6018 TMD-8418		TMS-6018 TMS-8418 TMS-14418 TMS-6618 TMS-9618 TMS-7218 TMS-12018	
2100	TMD-3021 TMD-4821 TMD-6621 TMD-3621 TMD-5421 TMD-7221 TMD-4221 TMD-6021 TMD-8421		TMS-6021 TMS-8421 TMS-14421 TMS-6621 TMS-9621 TMS-7221 TMS-12021	
2400	TMD-3024 TMD-4824 TMD-6624 TMD-3624 TMD-5424 TMD-7224 TMD-4224 TMD-6024 TMD-8424		TMS-6024 TMS-8424 TMS-14424 TMS-6624 TMS-9624 TMS-7224 TMS-12024	
平面				

注：TMD-3015 30表示大门宽度3000mm，15表示大门高度1500mm

单、双向推拉围墙大门选用图	图集号	12J9-1
	页次	67



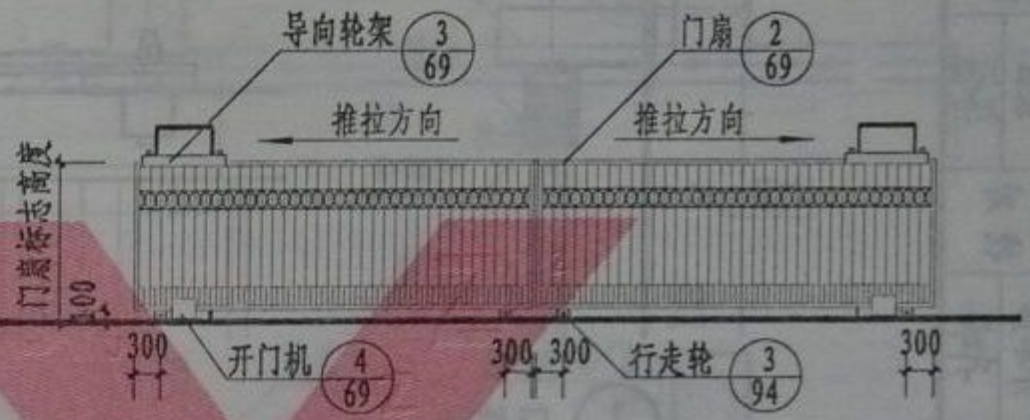
内立面图



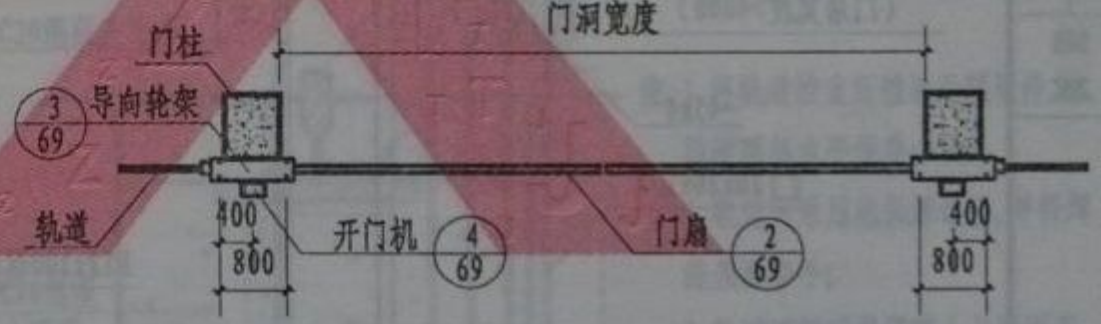
平面图

① 单向电动推拉大门

注:不安装电动开门机则为单向手动推拉大门



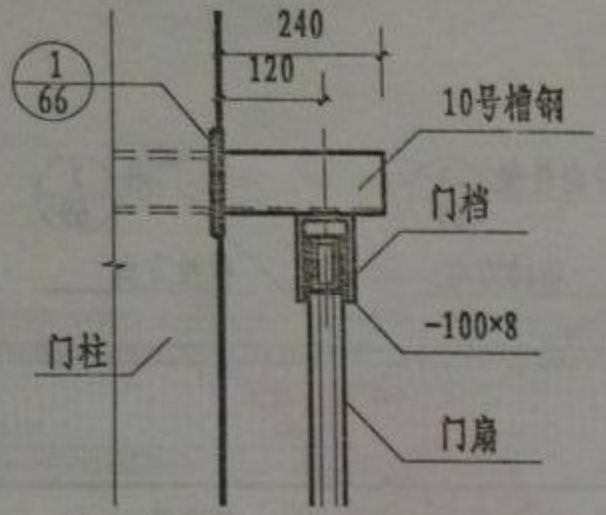
内立面图



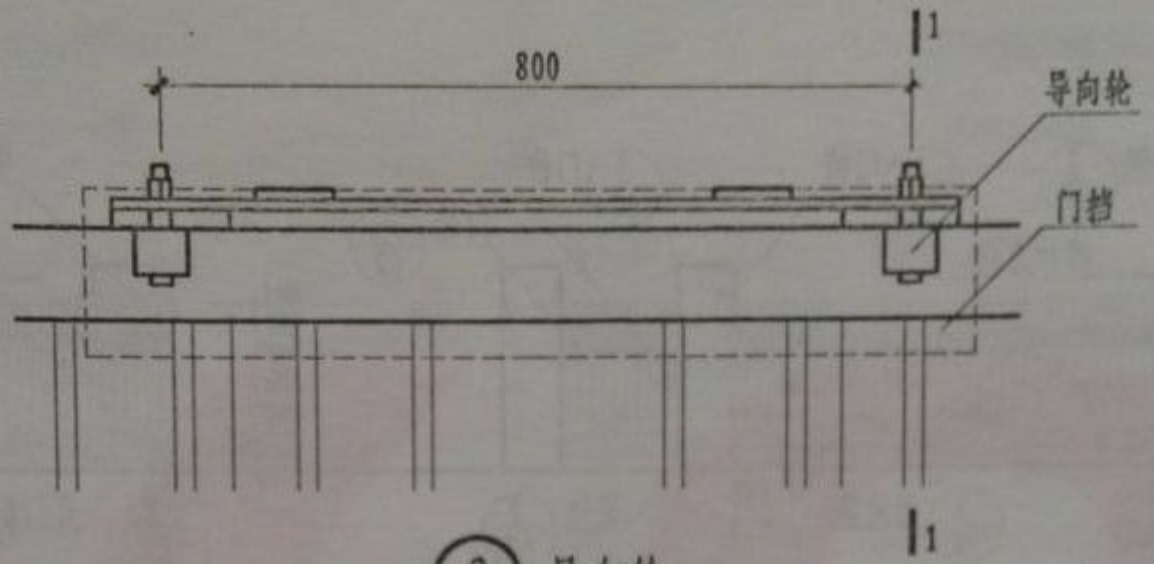
平面图

② 双向电动推拉大门

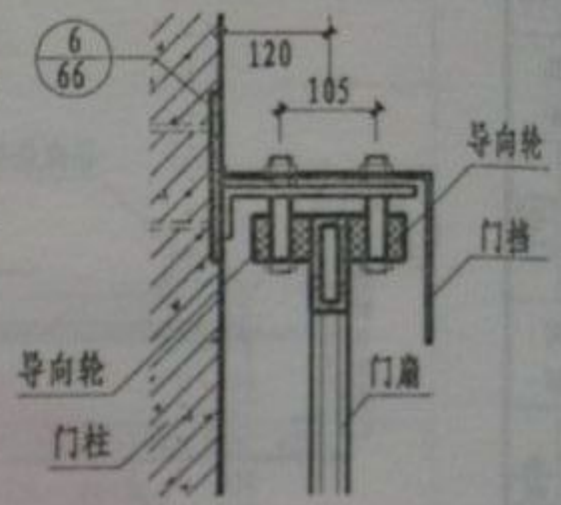
单、双向电动推拉大门平、立面图	图集号	12J9-1
	页次	68



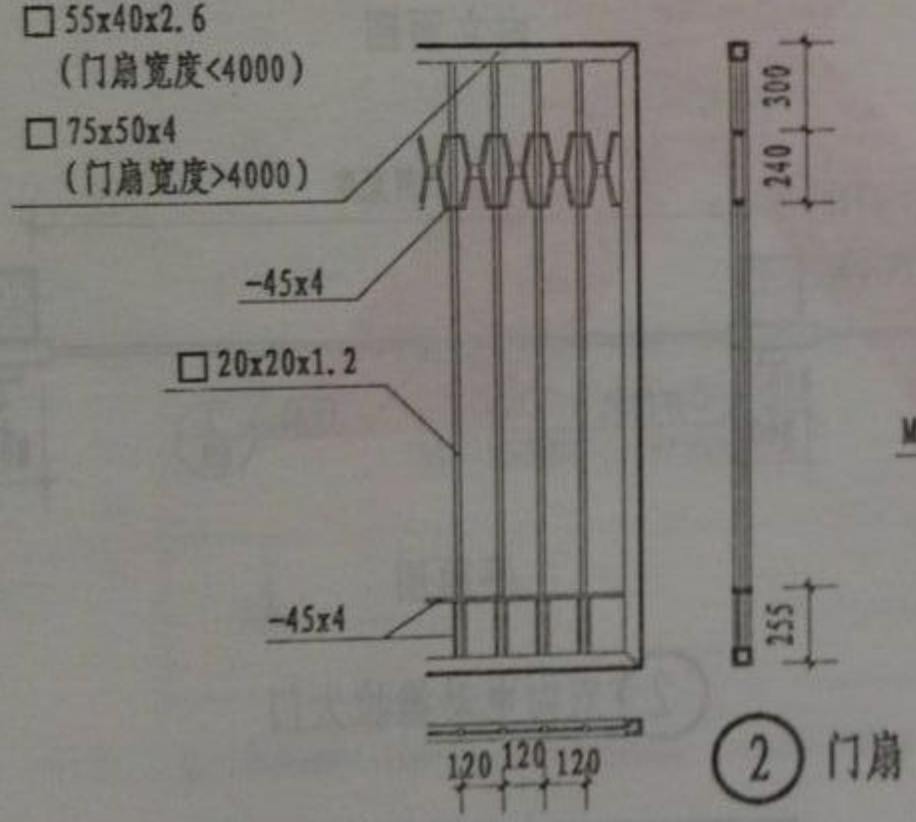
① 门档



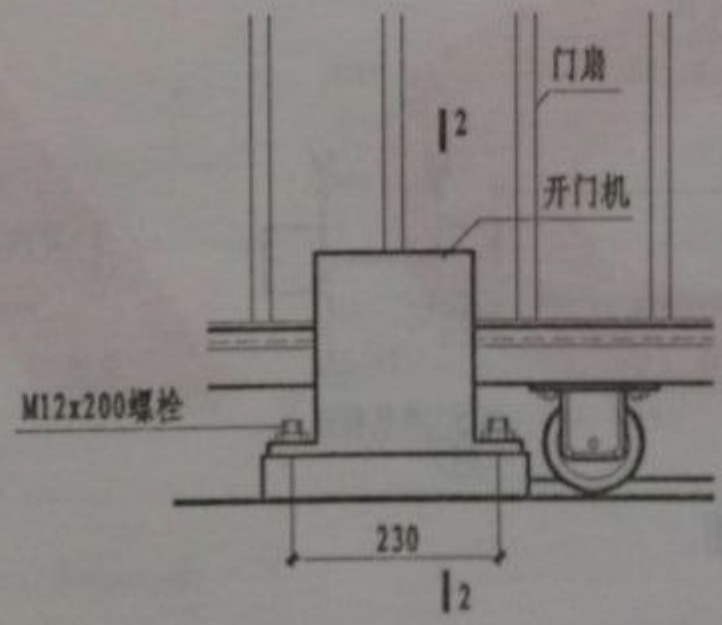
③ 导向轮



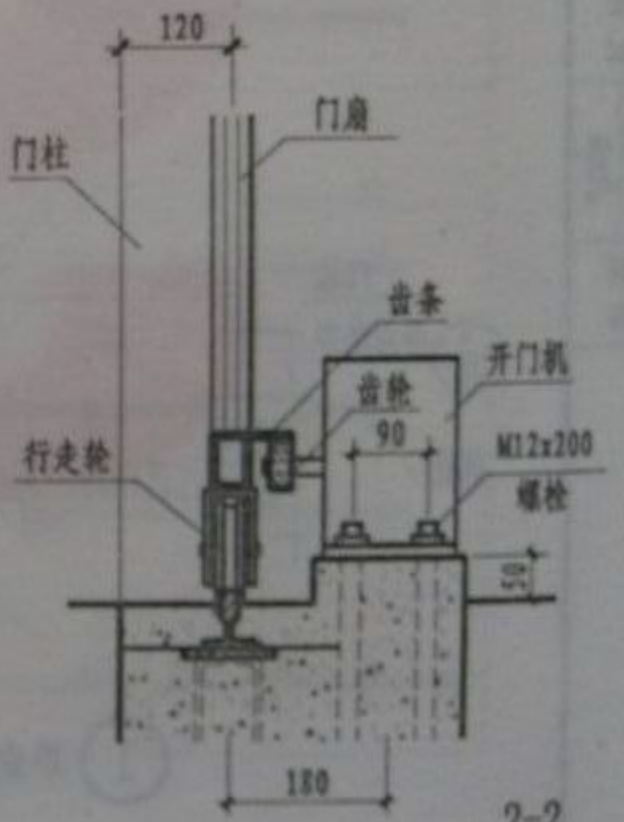
1-1



② 门扇



④ 开门机



2-2

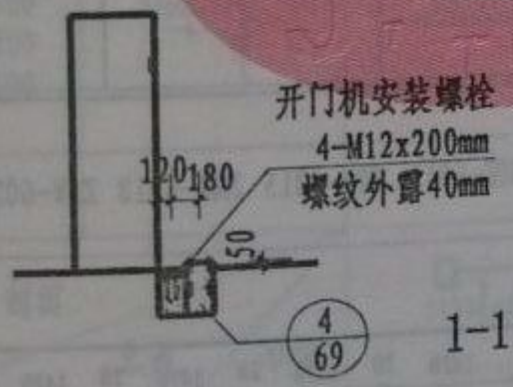
门扇、门档节点图 导向轮、开门机节点图	图集号	12J9-1
	页次	69



内立面图



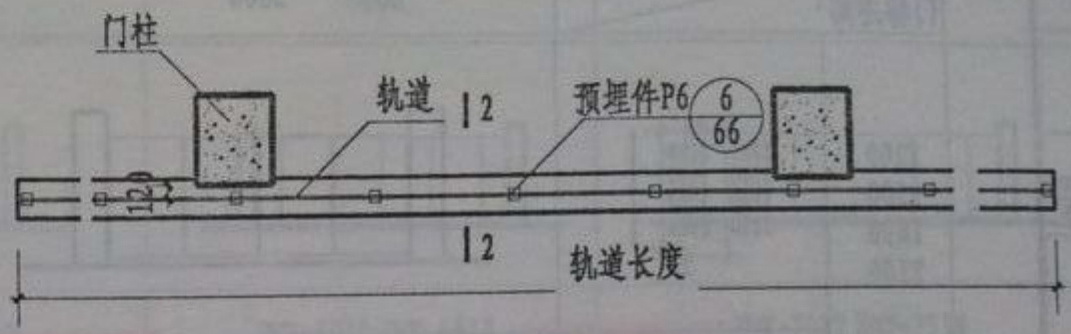
平面图

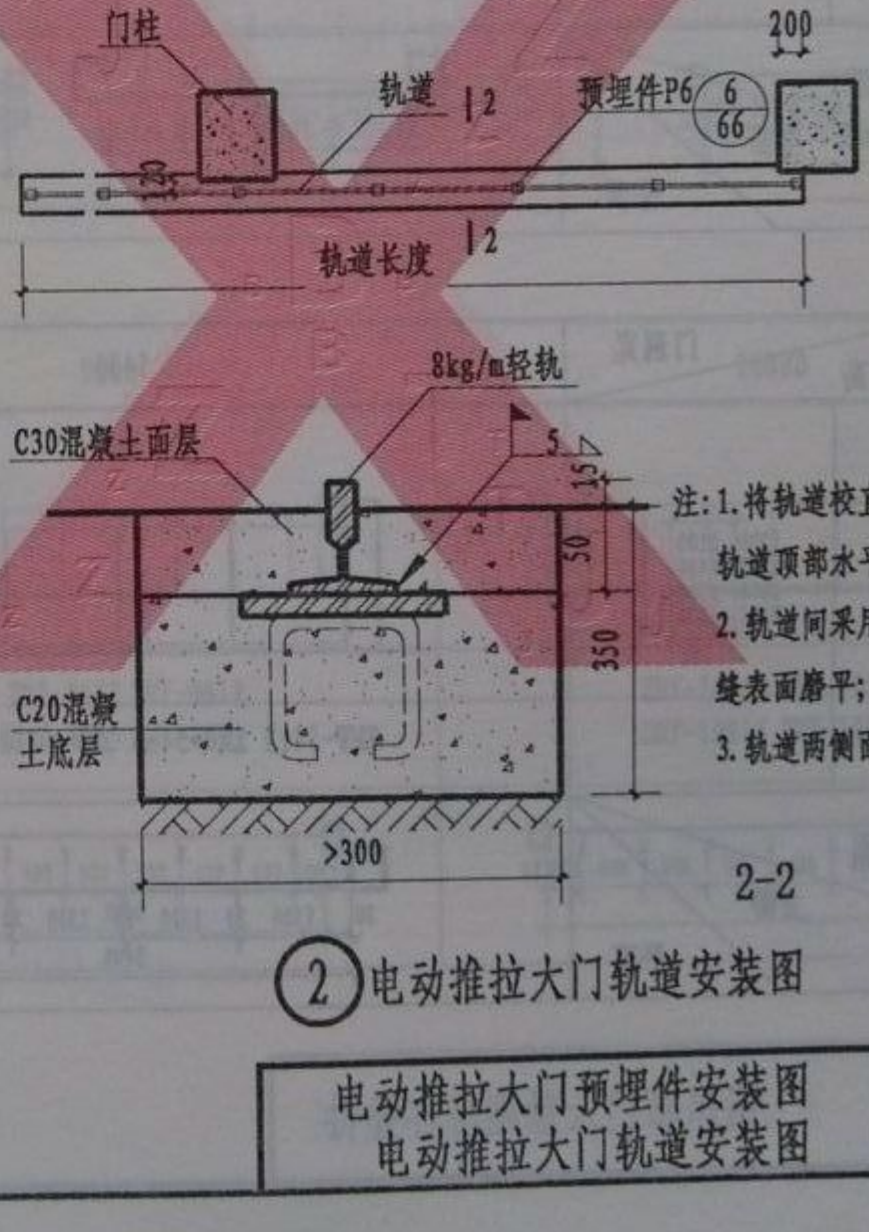


1-1

注:1. 基础下3:7灰土夯实,深度应大于当地土层冻结深度;
2. 轨道预埋件按同一标高设置,偏差≤±3mm,间距均等;
3. 手动门不设开门机座.

① 电动推拉大门预埋件安装图



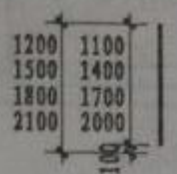
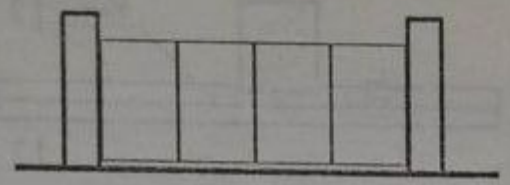
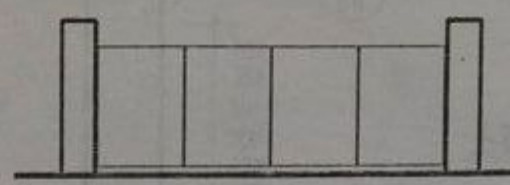
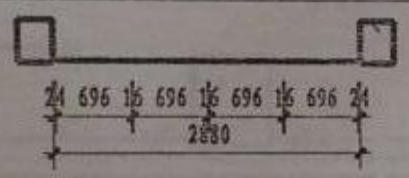
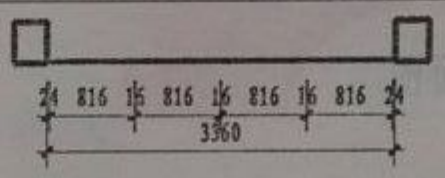
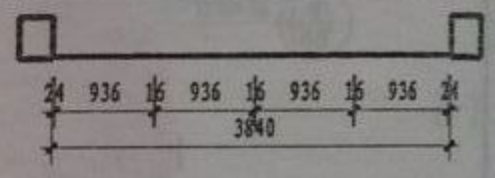


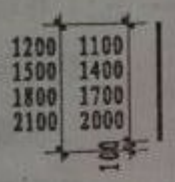
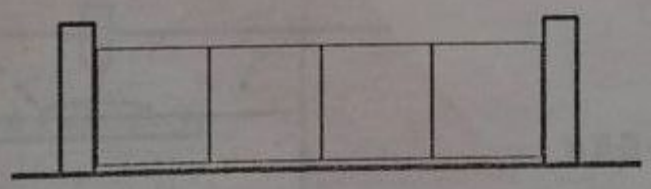
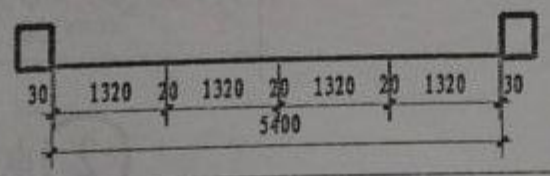
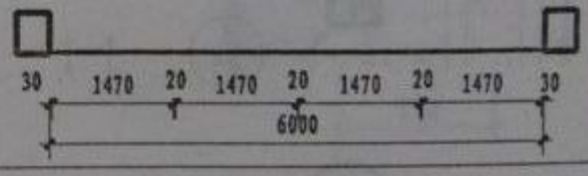
2-2

注:1. 将轨道校直后铺设于预埋件上,轨道顶部水平偏差≤±3mm;
2. 轨道间采用电弧焊连接,并将焊缝表面磨平;
3. 轨道两侧面层混凝土与地面平.

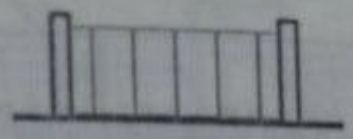
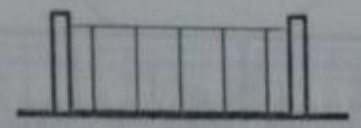
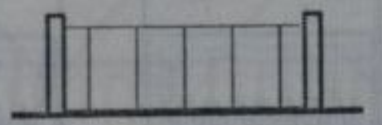
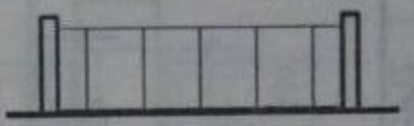
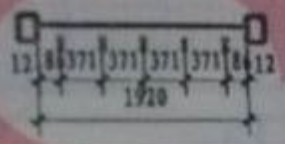
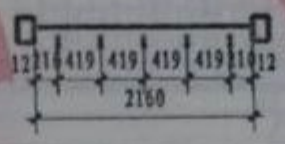
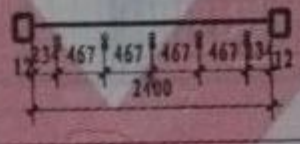
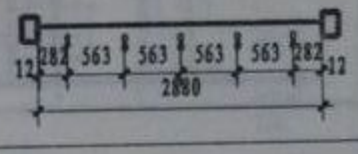
② 电动推拉大门轨道安装图

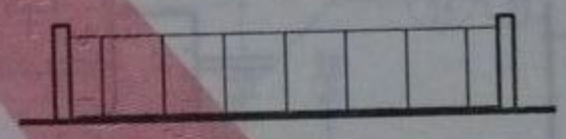
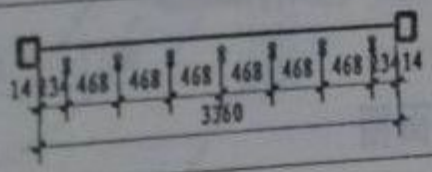
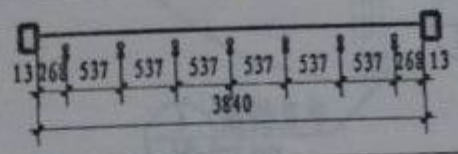
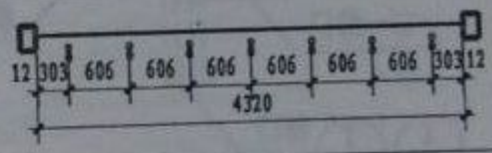
电动推拉大门预埋件安装图 电动推拉大门轨道安装图	图集号	12J9-1
	页次	70

门标志高 \ 门洞宽	3600	4200	4800
1200 1500 1800 2100			
	ZMW-3612 ZMW-3615 ZMW-3618 ZMW-3621	ZMW-4212 ZMW-4215 ZMW-4218 ZMW-4221	ZMW-4812 ZMW-4815 ZMW-4818 ZMW-4821
剖面 / 立面 / 平面			

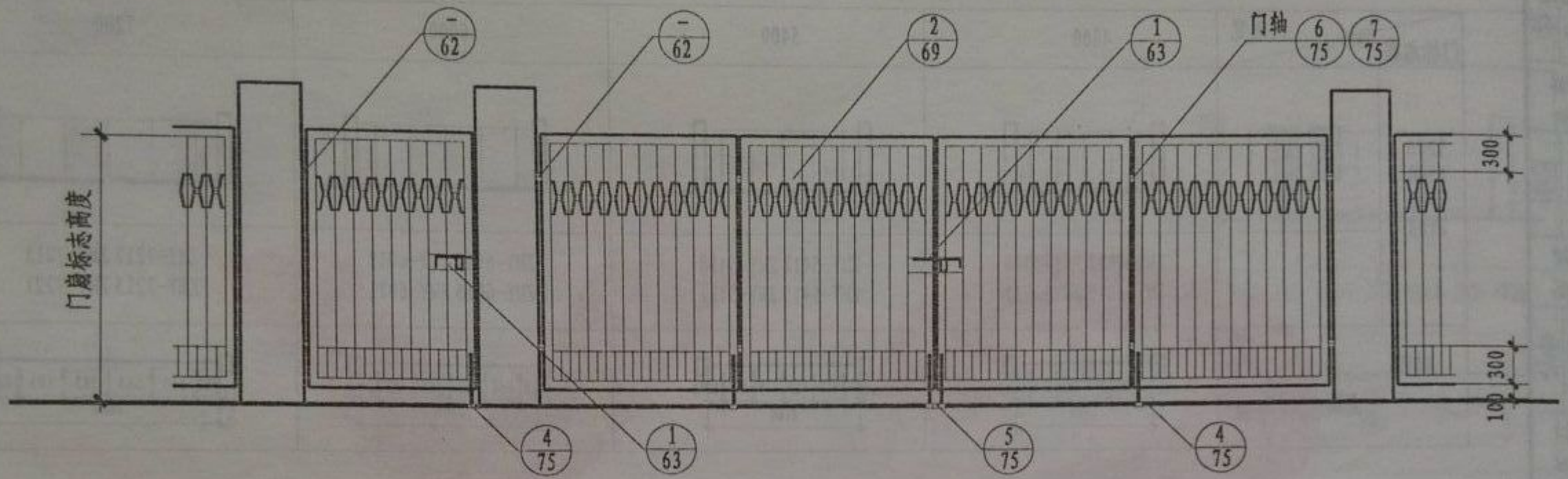
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1200 1500 1800 2100		
	ZMW-5412 ZMW-5415 ZMW-5418 ZMW-5421	ZMW-6012 ZMW-6015 ZMW-6018 ZMW-6021
剖面 / 立面 / 平面		

折叠无轨围墙大门选用图	图集号	12J9-1
	页次	71

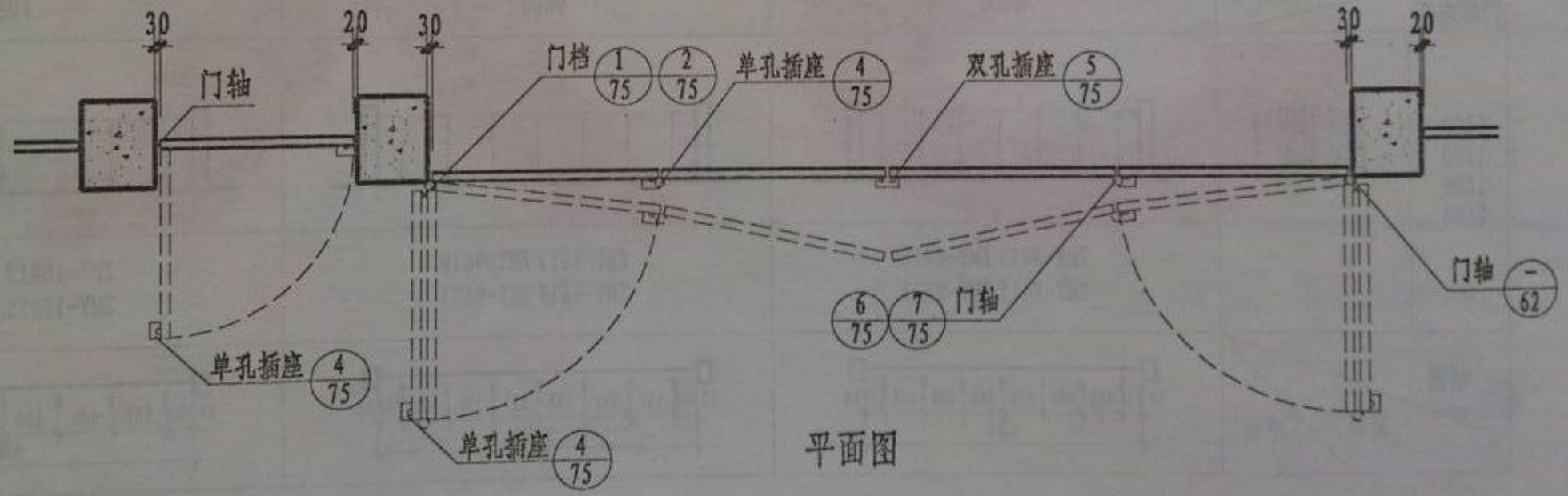
门标志高 \ 门洞宽		4800	5400	6000	7200
1200 1500 1800 2100	1200 1100 1500 1400 1800 1700 2100 2000				
		ZMY-4812 ZMY-4818 ZMY-4815 ZMY-4821	ZMY-5412 ZMY-5418 ZMY-5415 ZMY-5421	ZMY-6012 ZMY-6018 ZMY-6015 ZMY-6021	ZMY-7212 ZMY-7218 ZMY-7215 ZMY-7221
剖面 立面 平面					

门标志高 \ 门洞宽		8400	9600	10800
1200 1500 1800 2100	1200 1100 1500 1400 1800 1700 2100 2000			
		ZMY-8412 ZMY-8418 ZMY-8415 ZMY-8421	ZMY-9612 ZMY-9618 ZMY-9615 ZMY-9621	ZMY-10812 ZMY-10818 ZMY-10815 ZMY-10821
剖面 立面 平面				

折叠有轨围墙大门选用图	图集号	12J9-1
	页次	72



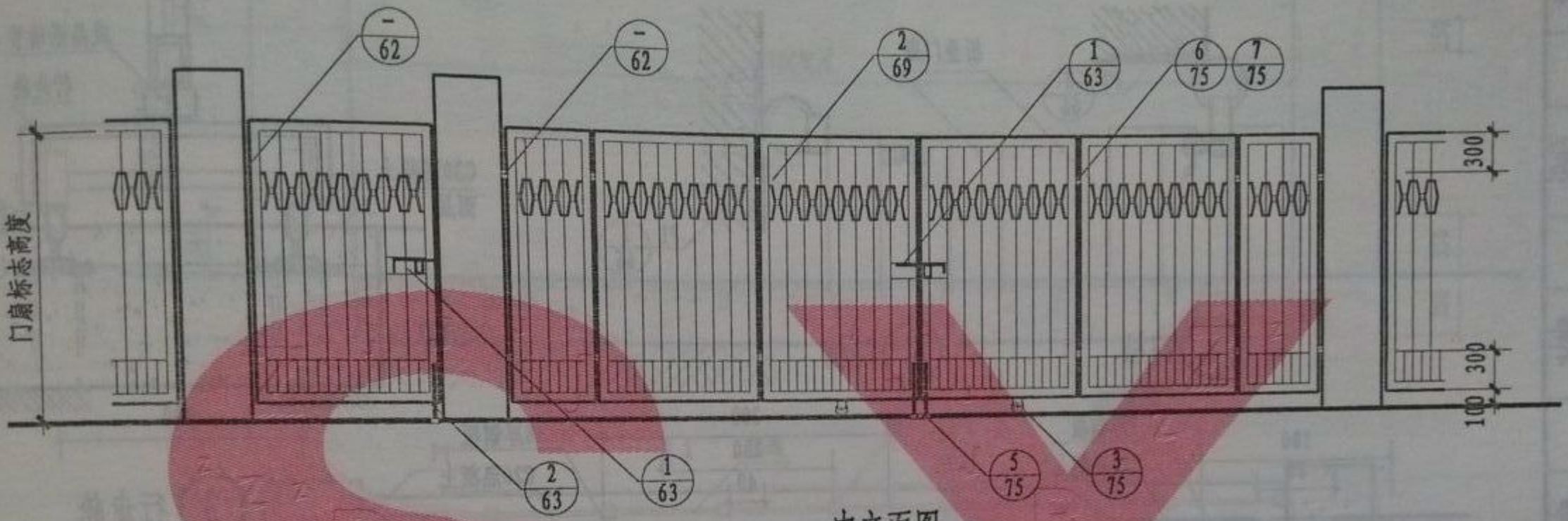
内立面图



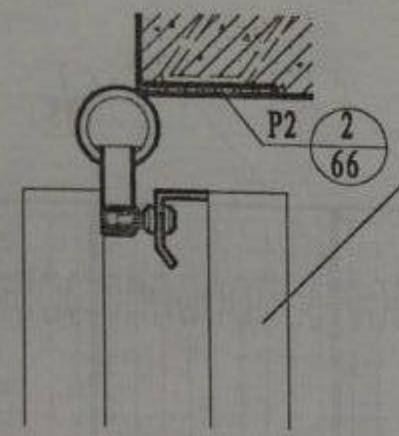
平面图

折叠无轨围墙大门平、立面图	图集号	12J9-1
	页次	73

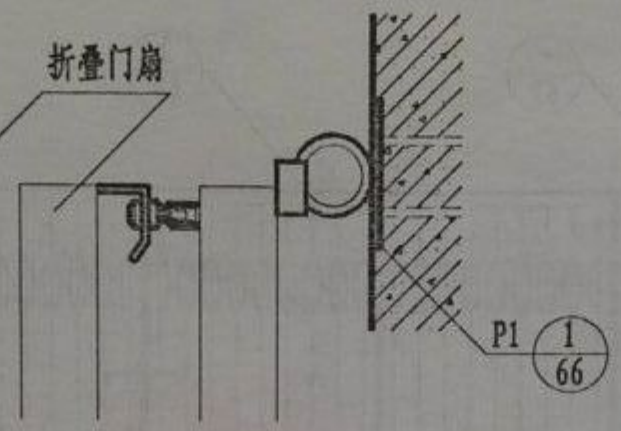
审核	郭彦	钤木
审核	张恒	张恒
校对	齐卓彦	齐卓彦
设计	齐卓彦	齐卓彦
图集		



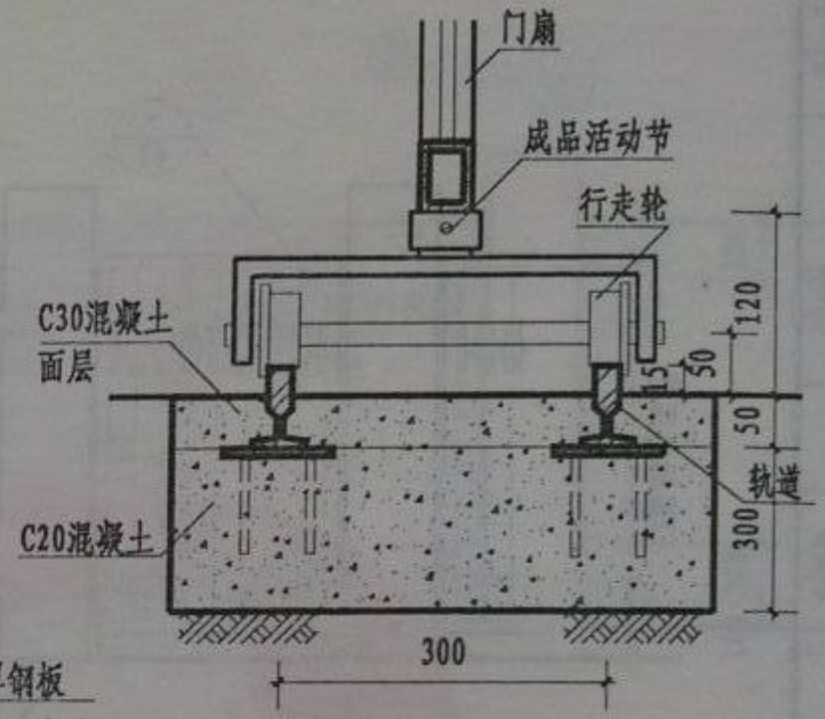
折叠有轨围墙大门平、立面图	图集号	12J9-1
	页次	74



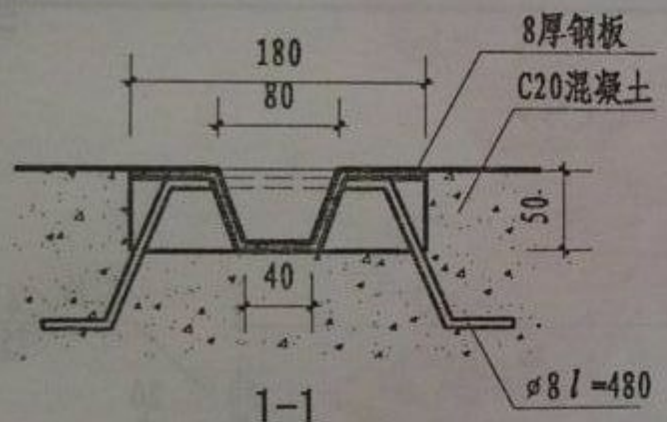
① 门档



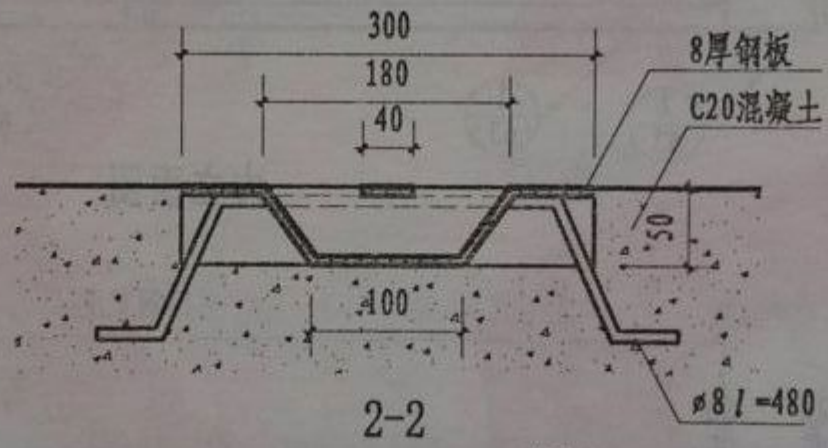
② 门档



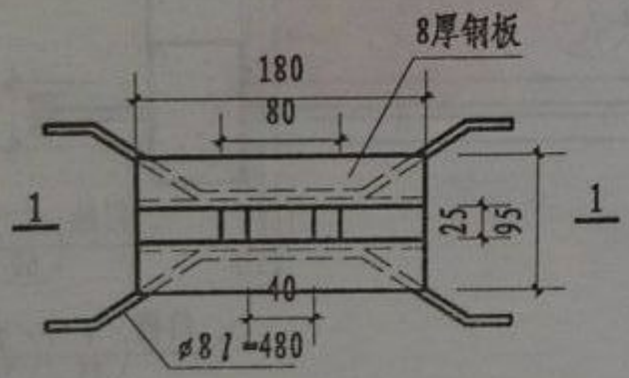
③ 行走轮



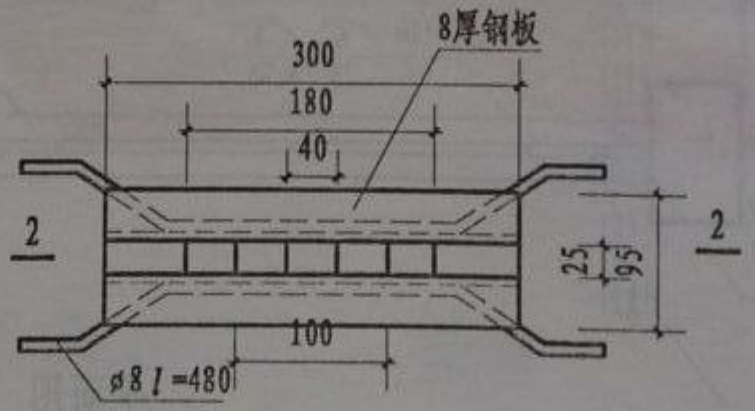
1-1



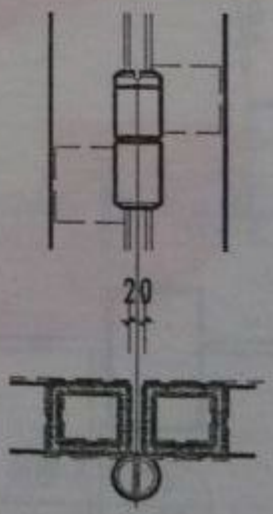
2-2



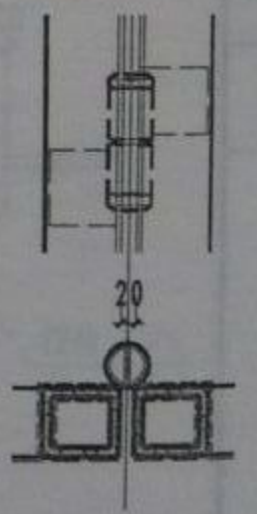
④ 单孔插座



⑤ 双孔插座

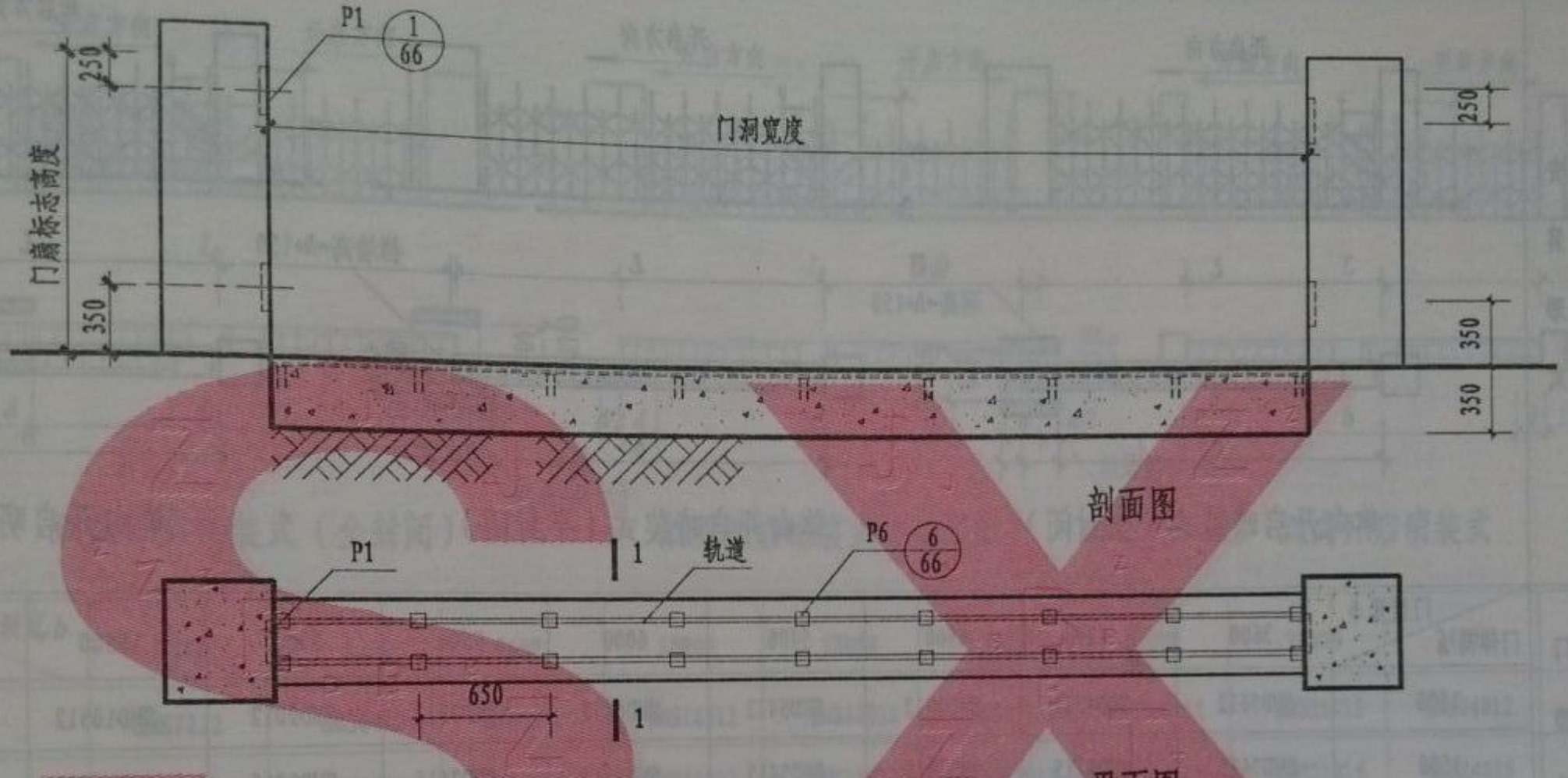


⑥ 门轴



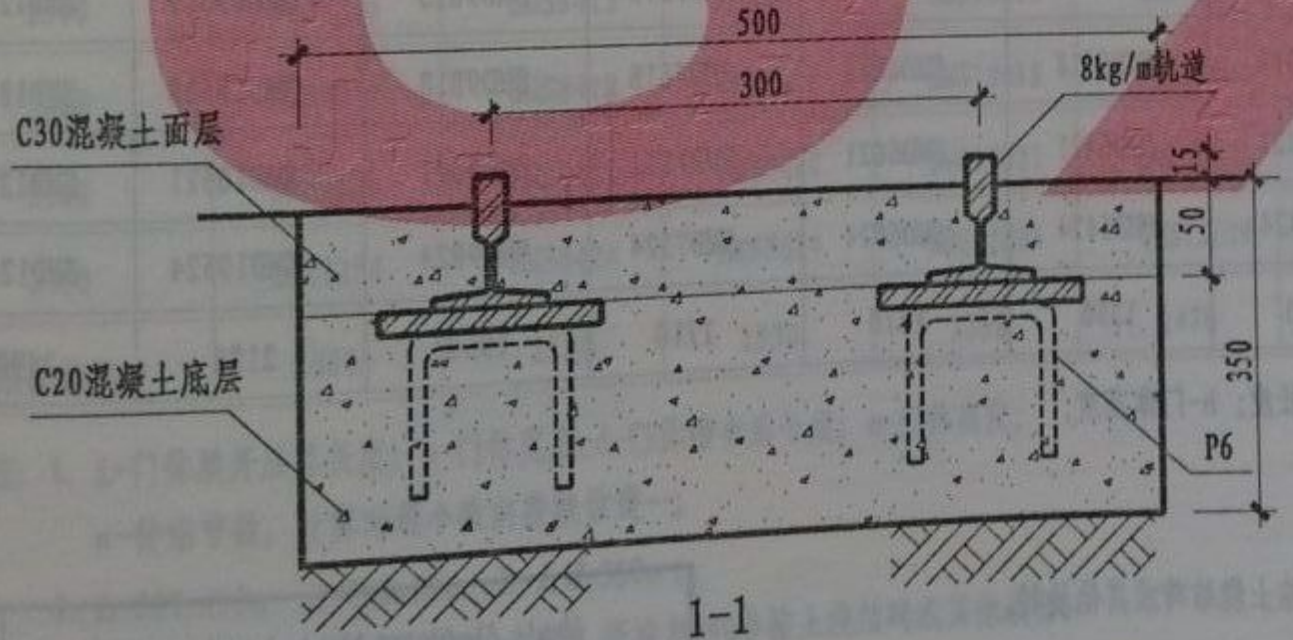
⑦ 门轴

门轴、门档、行走轮节点图 单、双孔插座节点图	图集号	12J9-1
	页次	75



剖面图

平面图



1-1

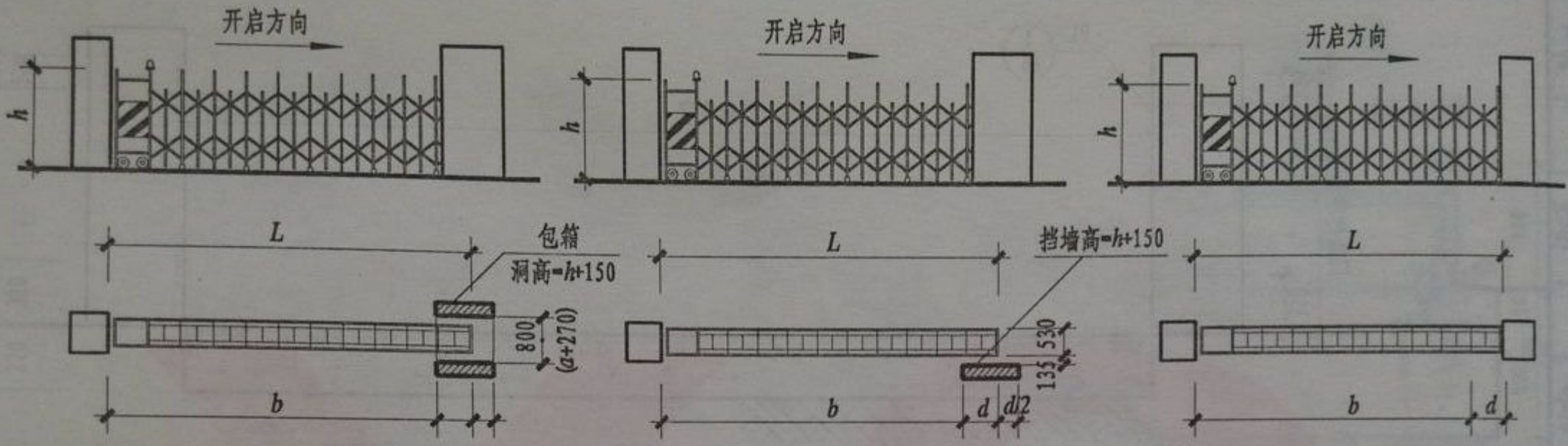
注：1. 基础下部填3:7灰土或素土分层夯实，深度应大于冻结深度；

2. 先作预埋件基础，待混凝土固化后再将轨道与预埋件焊接，水平度≤0.5%，不直度全长≤5mm，轨道顶距地面偏差 ≤±2mm；

3. 轨道与预埋件焊好后，用C30混凝土与地面抹平。

轨道及预埋件安装详图	图集号	12J9-1
	页次	76

安装形式



单向开启暗装式（全封闭）　　单向开启暗装式（半封闭）　　单向开启明装式

门型选用表

门体高 h ＼ 门洞宽 b	3600	4200	4800	5400	6000	7500	9000	10500	12000	15000
1200	SMD3612	SMD4212	SMD4812	SMD5412	SMD6012	SMD7512	SMD9012	SMD10512	SMD12012	SMD15012
1500	SMD3615	SMD4215	SMD4815	SMD5415	SMD6015	SMD7515	SMD9015	SMD10515	SMD12015	SMD15015
1800	SMD3618	SMD4218	SMD4818	SMD5418	SMD6018	SMD7518	SMD9018	SMD10518	SMD12018	SMD15018
2100	SMD3621	SMD4221	SMD4821	SMD5421	SMD6021	SMD7521	SMD9021	SMD10521	SMD12021	SMD15021
2400	SMD3624	SMD4224	SMD4824	SMD5424	SMD6024	SMD7524	SMD9024	SMD10524	SMD12024	SMD15024
缩合长度d	1050	1110	1230	1350	1470	1710	1950	2190	2490	2970

注：1. *L*-门体展开后总长度；a-门体宽度；d-门体缩合后长度；h-门体高度；
n-伸缩节数，计算时遇小数向整数位进一；

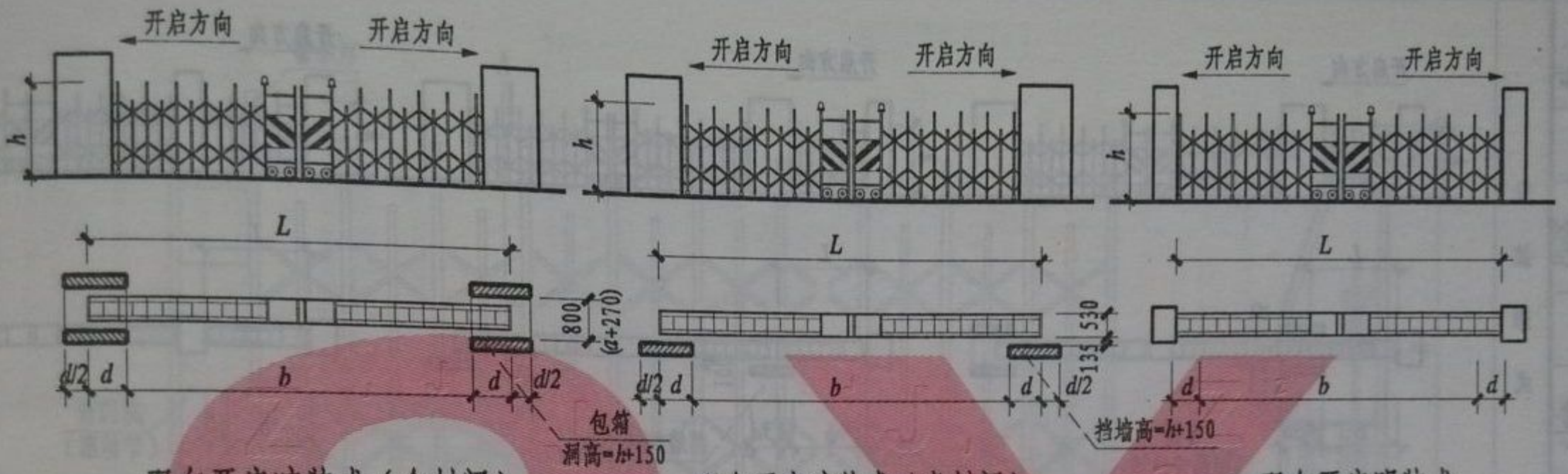
2. $L=390+410n$　$d=390+60n$　$b=L-d-350n$；

3. 包箱壁材为150厚钢筋混凝土浇注；挡土墙为240非粘土烧结砖或其他块材.

单向伸缩围墙大门选用图

图集号	12J9-1
页次	77

安装形式



双向开启暗装式（全封闭）　双向开启暗装式（半封闭）　双向开启明装式

门型选用表

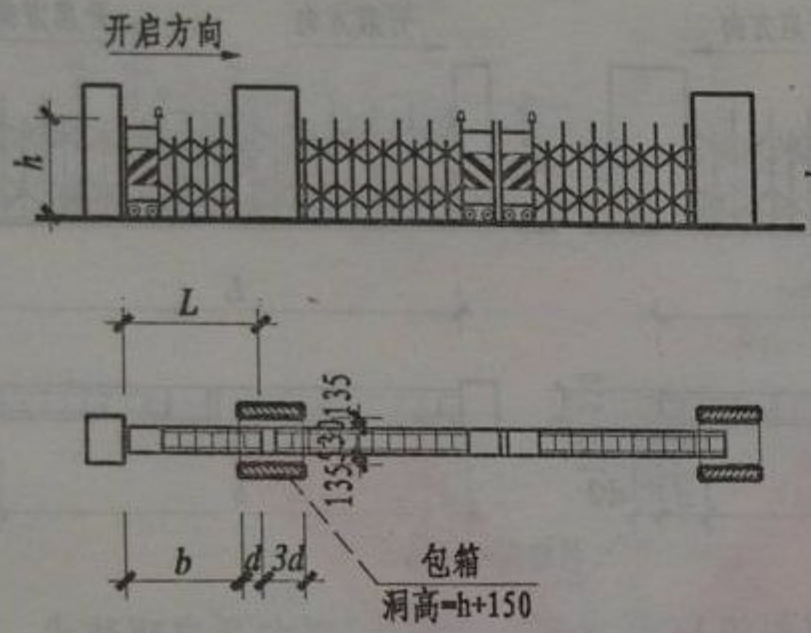
门体高 h \ 门洞宽 b	7200	8400	9600	10800	12000	15000	18000	21000	24000	30000
1200	SMS7212	SMS8412	SMS9612	SMS10812	SMS12012	SMS15012	SMS18012	SMS21012	SMS24012	SMS30012
1500	SMS7215	SMS8415	SMS9615	SMS10815	SMS12015	SMS15015	SMS18015	SMS21015	SMS24015	SMS30015
1800	SMS7218	SMS8418	SMS9618	SMS10818	SMS12018	SMS15018	SMS18018	SMS21018	SMS24018	SMS30018
2100	SMS7221	SMS8421	SMS9621	SMS10821	SMS12021	SMS15021	SMS18021	SMS21021	SMS24021	SMS30021
2400	SMS7224	SMS8424	SMS9624	SMS10824	SMS12024	SMS15024	SMS18024	SMS21024	SMS24024	SMS30024
缩合长度 d	1050	1110	1230	1350	1470	1710	1950	2190	2490	2970

注：1. *L*-门体展开后总长度；a-门体宽度；d-门体缩合后长度；h-门体高度；
n-伸缩节数，计算时遇小数向整数位进一；
2. $L=390+410n$　$d=390+60n$　$b=L-d=350n$；
3. 包箱壁材为150厚钢筋混凝土浇筑；挡墙为240非粘土烧结砖或其他块材。

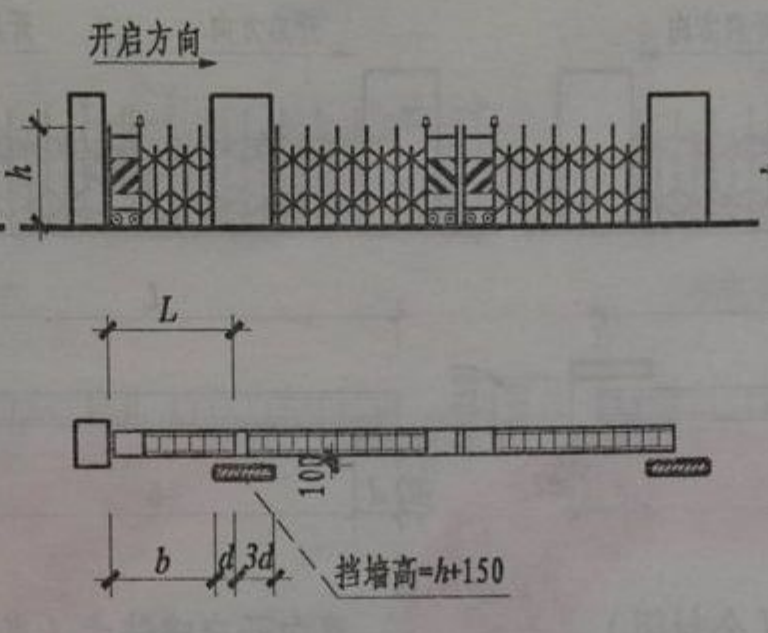
双向伸缩围墙大门选用图

图集号	12J9-1
页次	78

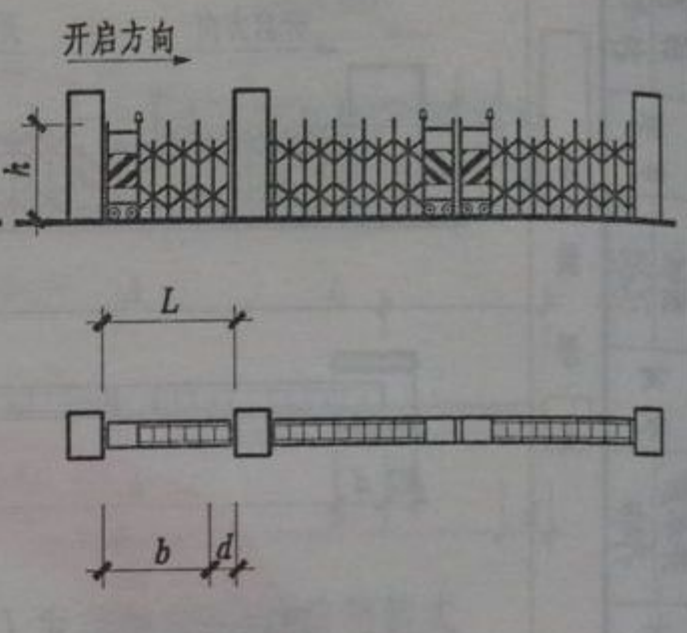
安装形式



右向开启暗装式（全封闭）



左向开启暗装式（半封闭）



右向开启明装式

门型选用表

门体高 h ＼ 门洞宽 b	1200	1500	1800	2100	2400
1200	SMD1212	SMD1512	SMD1812	SMD2112	SMD2412
1500	SMD1215	SMD1515	SMD1815	SMD2115	SMD2415
1800	SMD1218	SMD1518	SMD1818	SMD2118	SMD2418
2100	SMD1221	SMD1521	SMD1821	SMD2121	SMD2421
2400	SMD1224	SMD1524	SMD1824	SMD2124	SMD2424
缩合长度 d	630	690	750	750	810

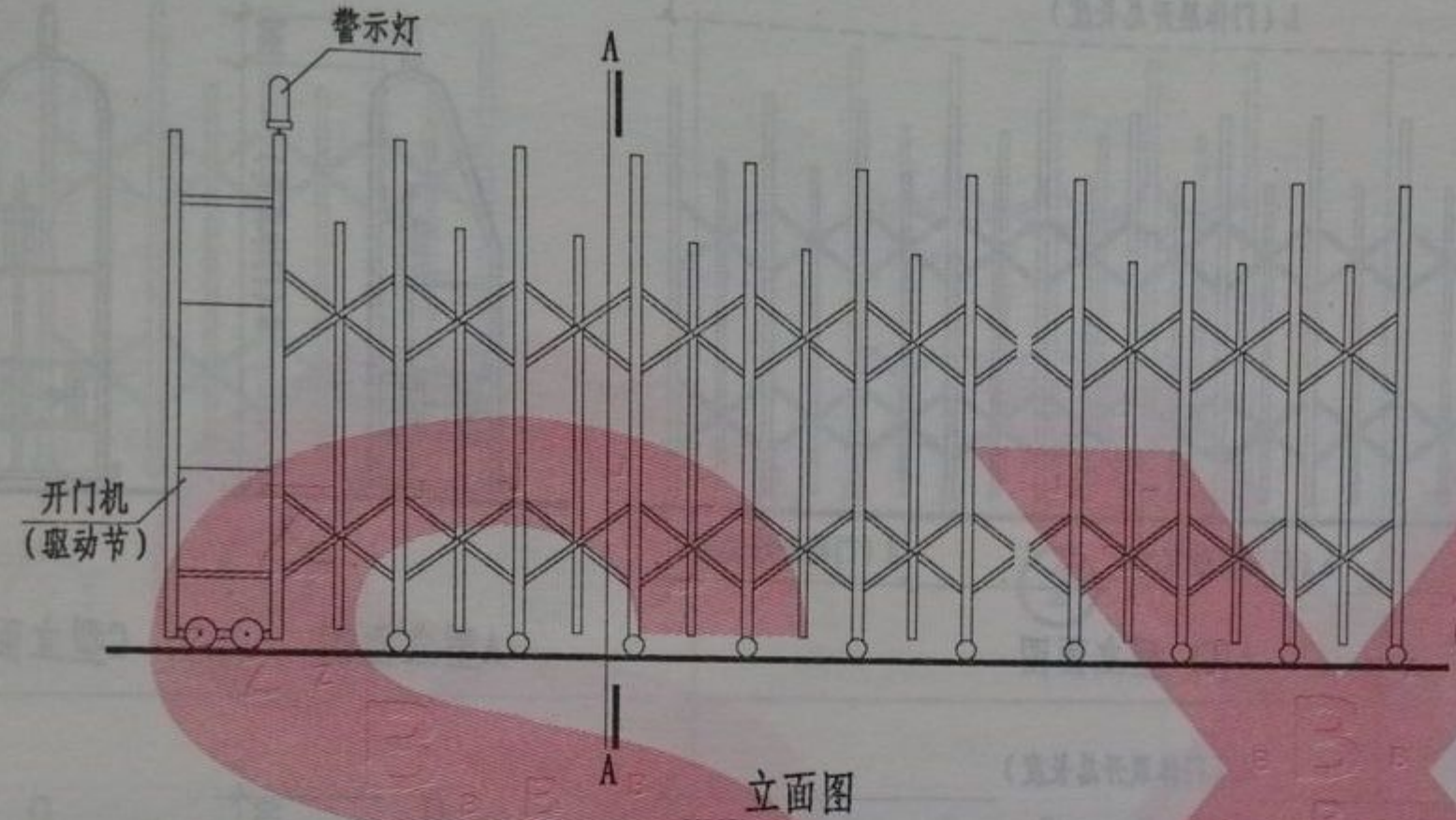
注：1. L-门体展开后总长度；a-门体宽度；d-门体缩合后长度；h-门体高度；n-伸缩节数，计算时遇小数向整数位进一；

2. $L=390+410n$　$d=390+60n$　$b=L-d-350n$；

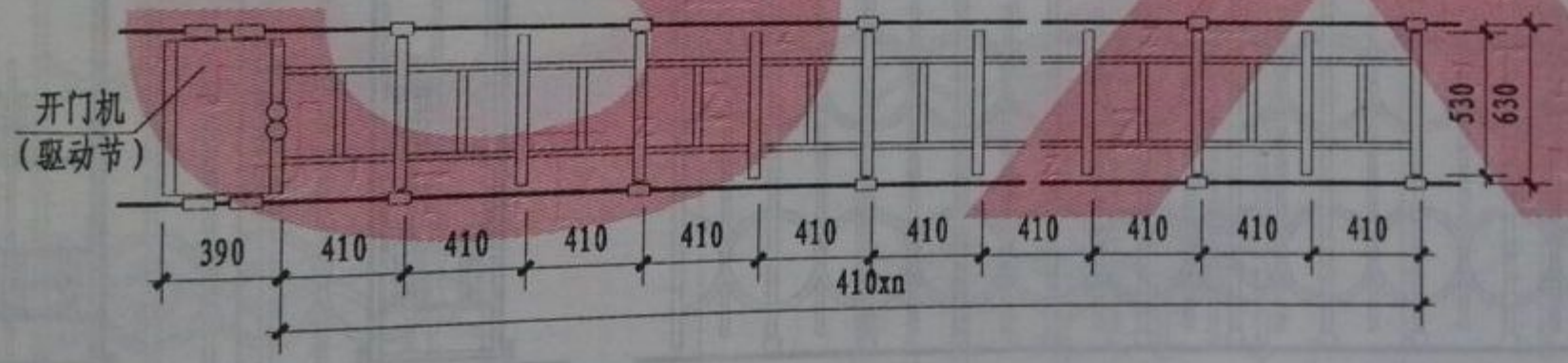
3. 伸缩边门也可采用其它类型门，如平开门；

4. 包箱壁材为150厚钢筋混凝土浇筑；挡墙为240非粘土烧结砖或其他块材.

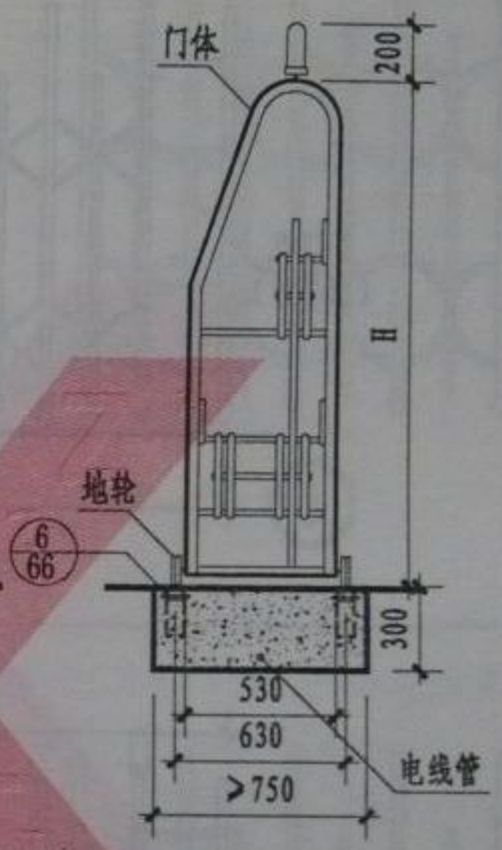
伸缩围墙边门选用图	图集号	12J9-1
	页次	79



立面图



平面图

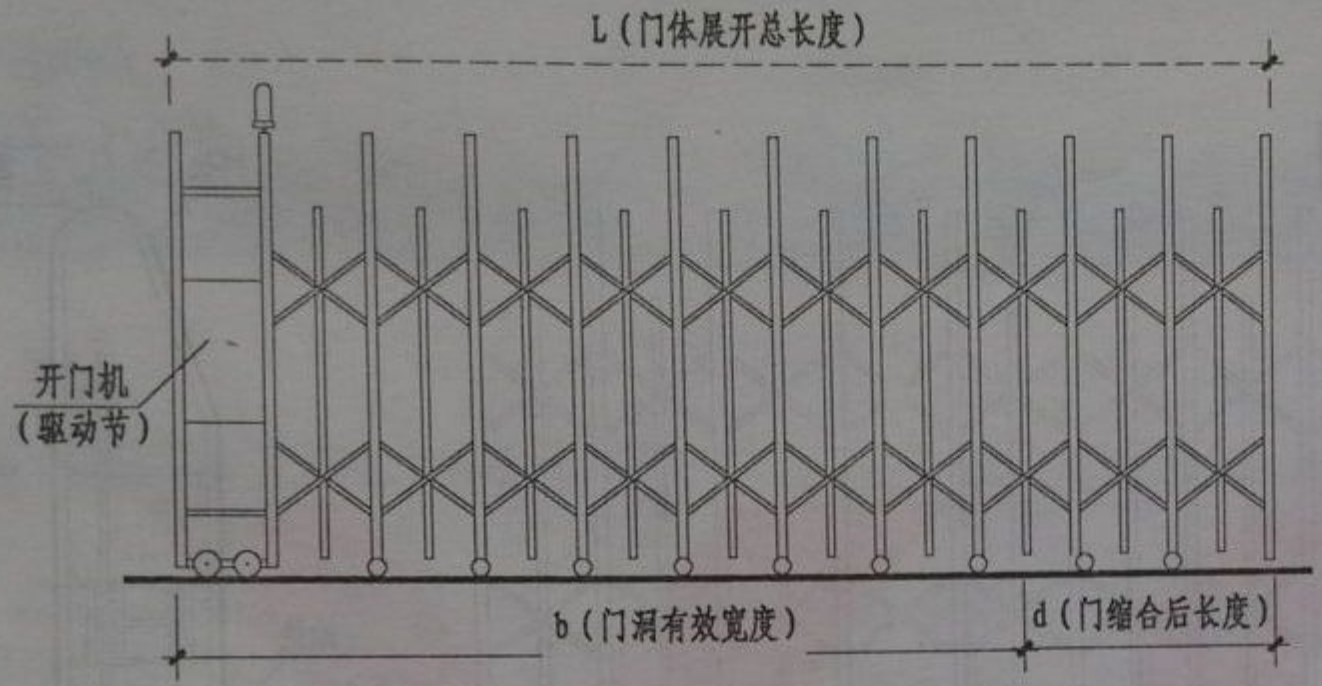


A－A

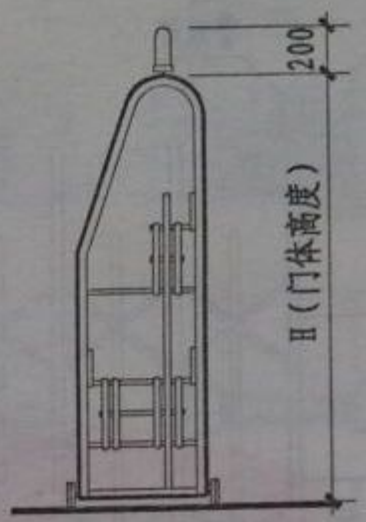
1．伸缩节每节最大展开长度为410
每节缩合后最小长度为60;

2．不安装电动开门机及电控装置
则为手动伸缩门.

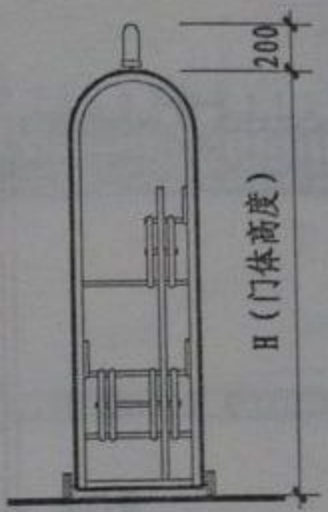
电动伸缩围墙大门平、立、剖面图	图集号	12J9-1
	页次	80



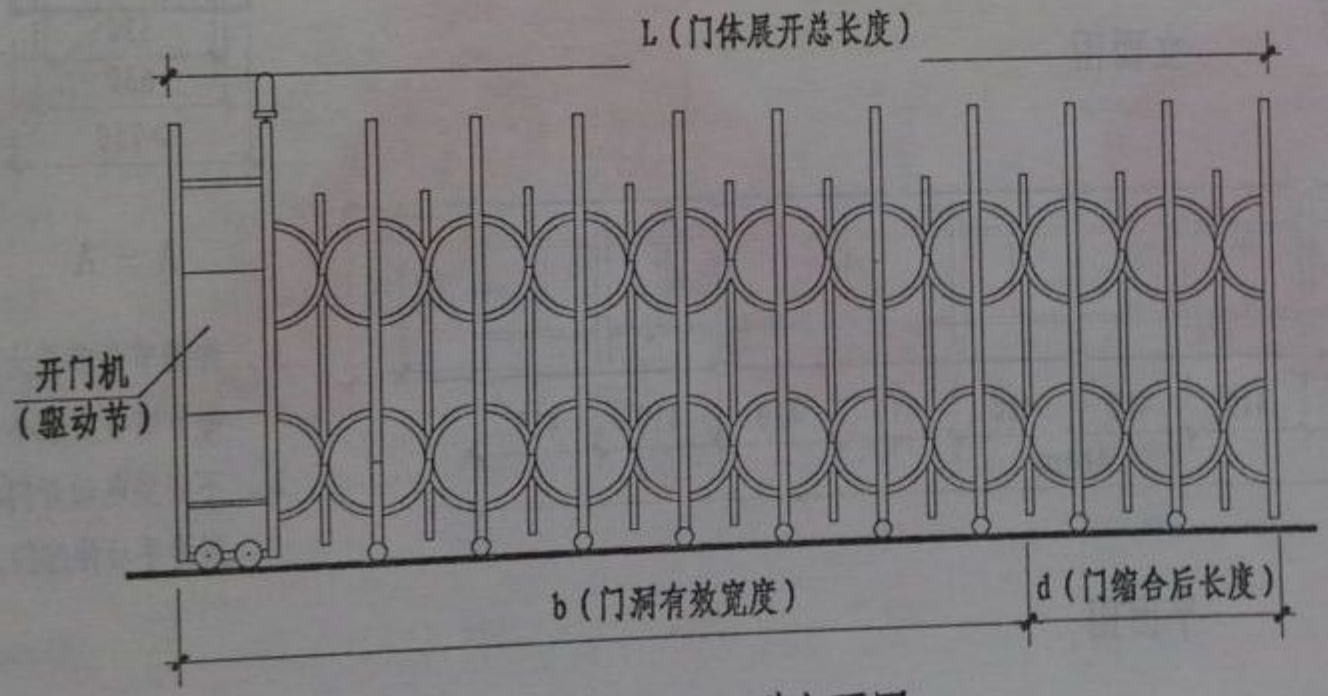
A(C) 型立面图



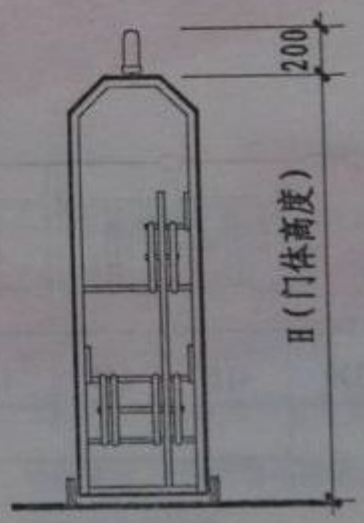
A型立面图



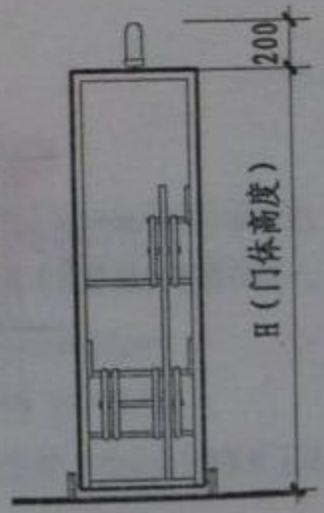
C型立面图



B(D) 型立面图



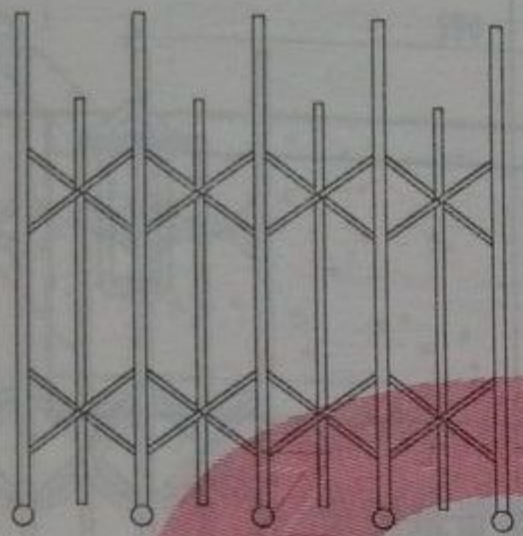
B型立面图



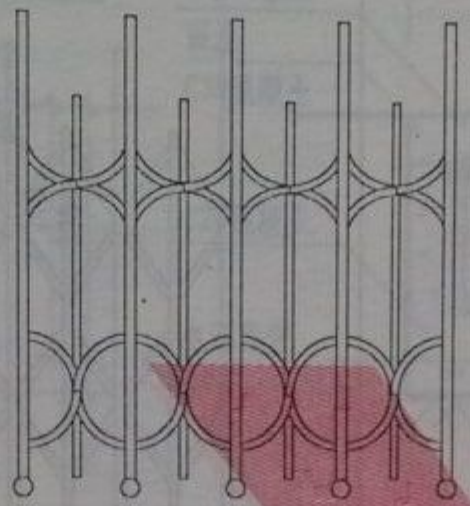
D型立面图

伸缩门门型选用图

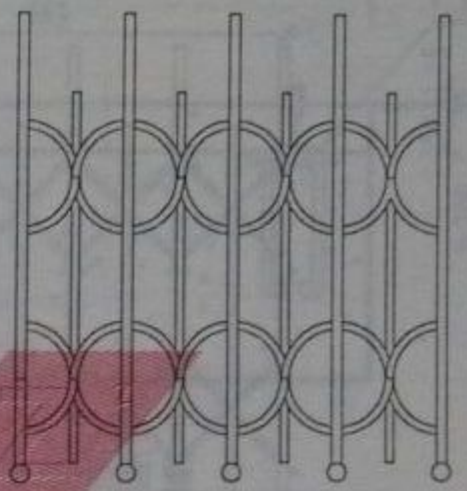
图集号	12J9-1
页次	81



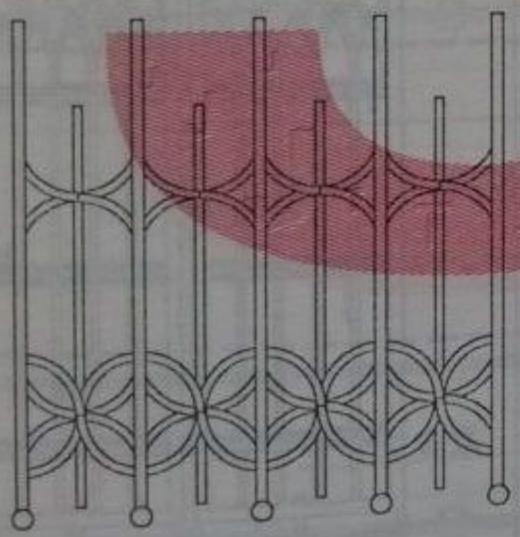
①



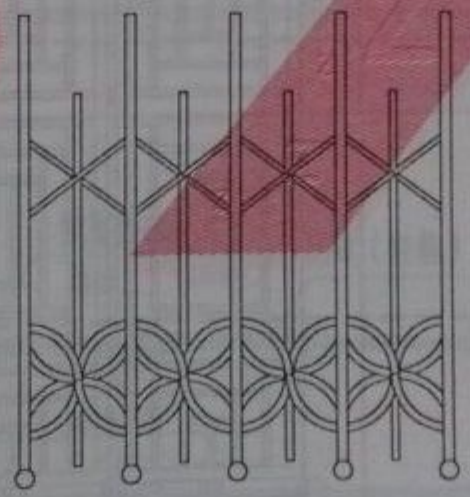
②



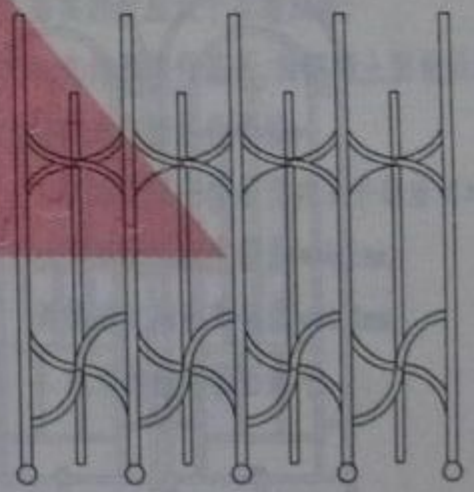
③



④



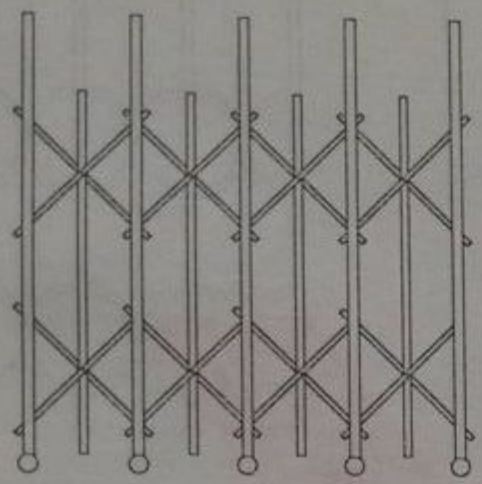
⑤



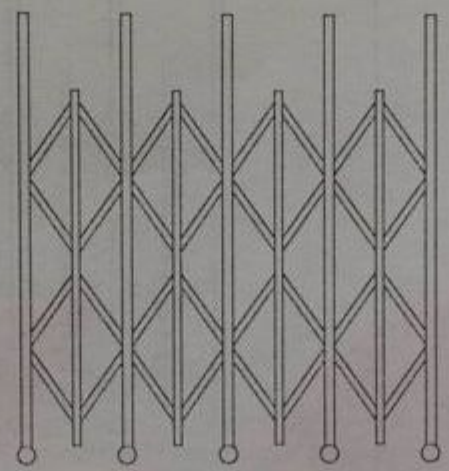
⑥

SX

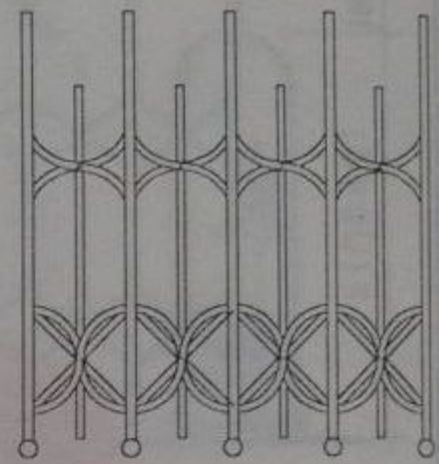
伸缩门门体花型选用图（一）	图集号	12J9-1
	页次	82



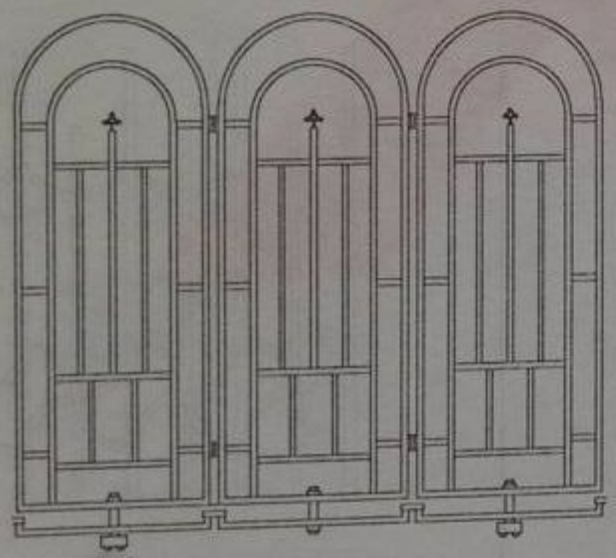
⑦



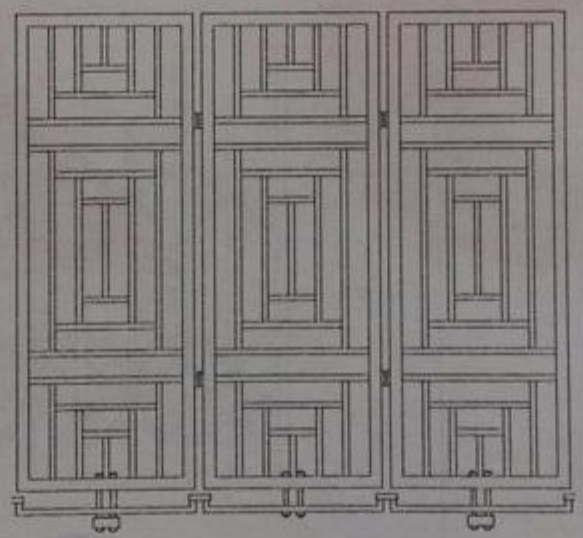
⑧



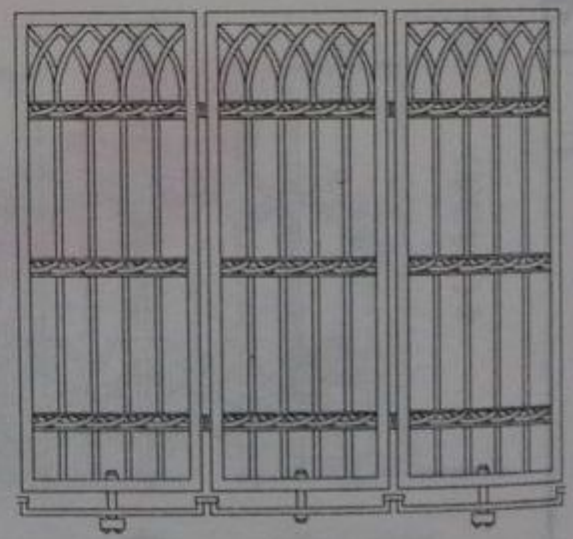
⑨



⑩



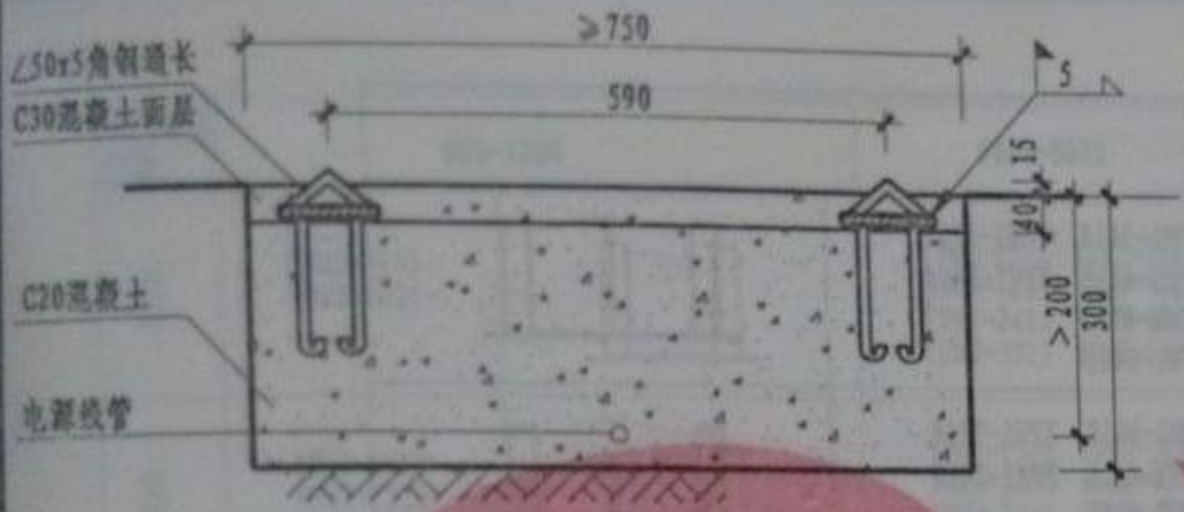
⑪



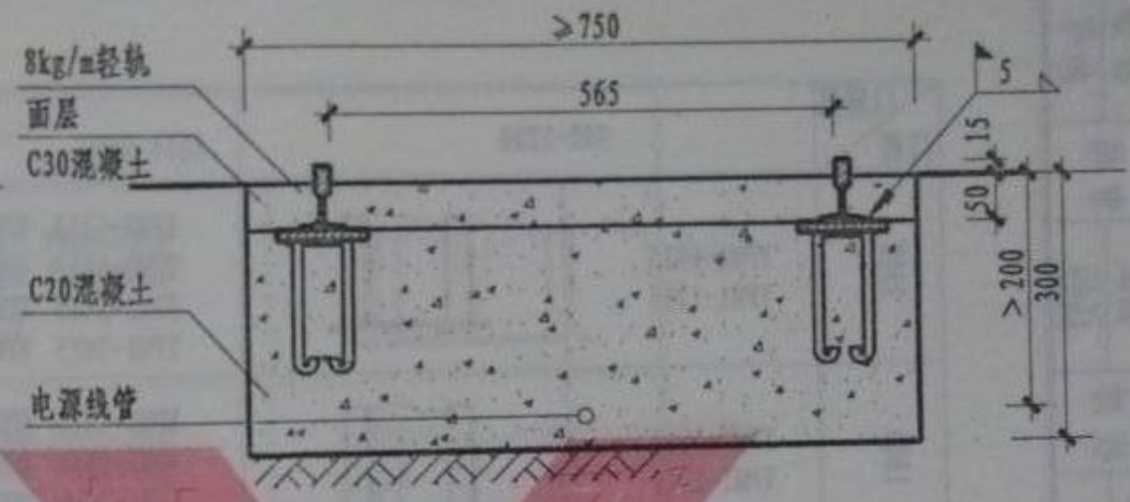
⑫

伸缩门门体花形选用图（二）

图集号	12J9-1
页次	83



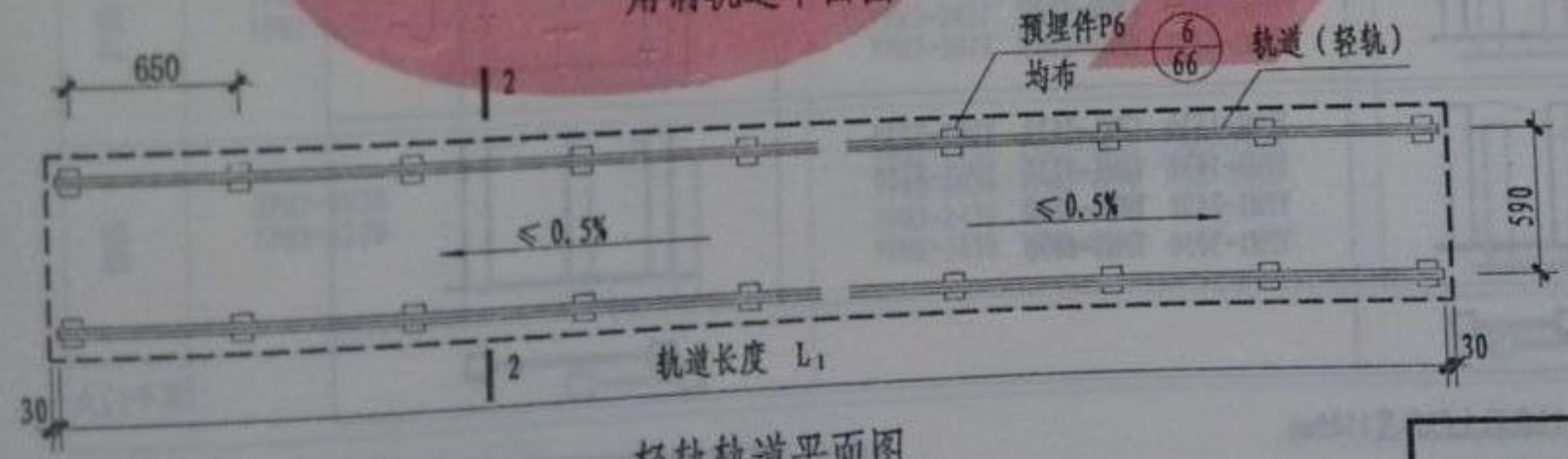
1-1角钢轨道剖面图



2-2角钢轨道剖面图



角钢轨道平面图



轻轨轨道平面图

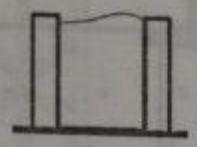
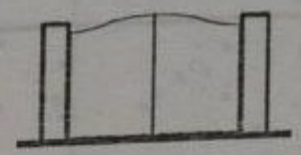
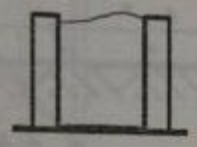
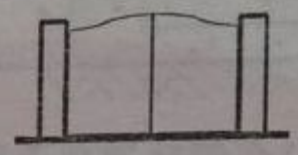
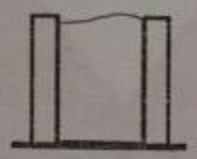
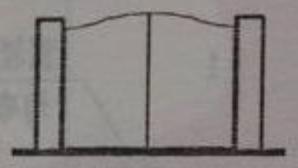
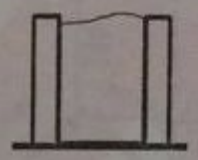
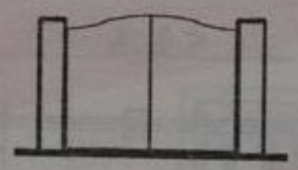
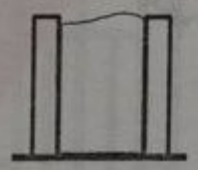
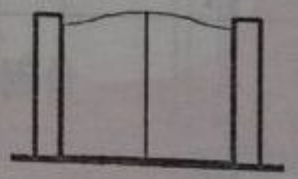
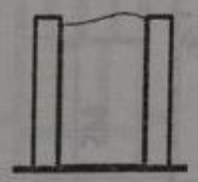
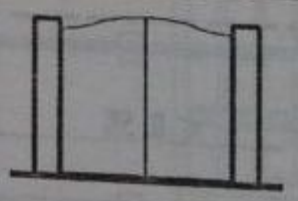
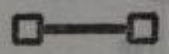
注：1. 基础下部填3:7灰土或素土夯实，填土夯实深度应大于冻结深度；

2. 先作预埋件基础，待混凝土固化后再将轨道与预埋件焊接；

3. 轨道在同一横截面内水平偏差≤±2mm，轨顶距地面高度偏差≤±2mm，两轨道之间距离偏差≤±2mm；

4. 轨道接缝焊接后磨平。

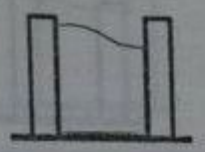
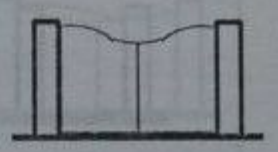
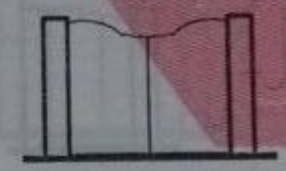
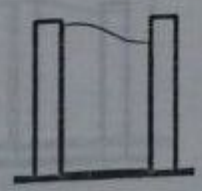
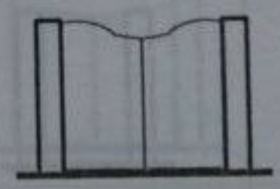
轨道安装详图	图集号	12J9-1
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门高 \ 门洞宽	900-1200		1500-8400	
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1800	YPM1-0918 YPM1-1218		YPM1-1518 YPM1-3618 YPM1-7218 YPM1-1818 YPM1-4218 YPM1-8418 YPM1-2418 YPM1-4818 YPM1-3018 YPM1-6018	
2100	YPM1-0921 YPM1-1221		YPM1-1521 YPM1-3621 YPM1-7221 YPM1-1821 YPM1-4221 YPM1-8421 YPM1-2421 YPM1-4821 YPM1-3021 YPM1-6021	
2400	YPM1-0924 YPM1-1224		YPM1-1524 YPM1-3624 YPM1-7224 YPM1-1824 YPM1-4224 YPM1-8424 YPM1-2424 YPM1-4824 YPM1-3024 YPM1-6024	
2700	YPM1-0927 YPM1-1227		YPM1-1527 YPM1-3627 YPM1-7227 YPM1-1827 YPM1-4227 YPM1-8427 YPM1-2427 YPM1-4827 YPM1-3027 YPM1-6027	
3000	YPM1-0930 YPM1-1230		YPM1-1530 YPM1-3630 YPM1-7230 YPM1-1830 YPM1-4230 YPM1-8430 YPM1-2430 YPM1-4830 YPM1-3030 YPM1-6030	
大门平面				

注：YPM1-0915 09表示大门宽度900mm，15表示大门高度1500mm

铁艺YPM1型平开围墙大门选用图

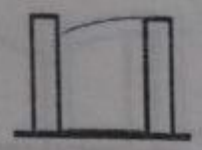
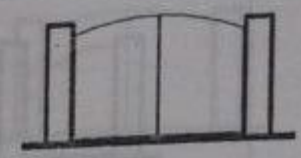
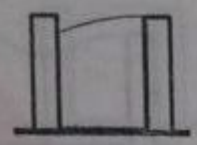
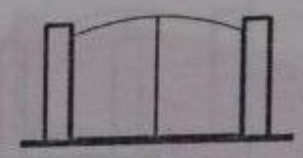
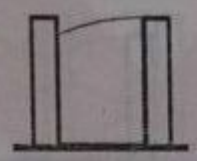
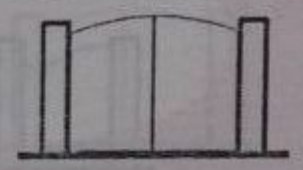
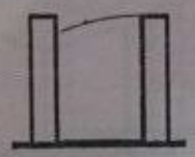
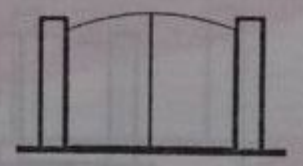
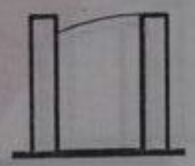
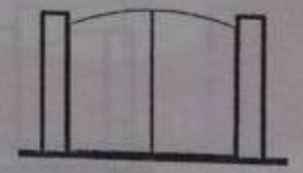
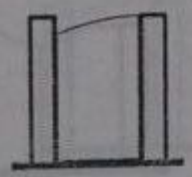
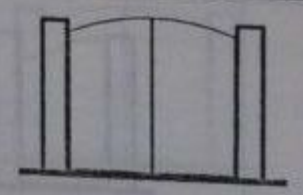
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门高 \ 门洞宽	900-1200		1500-8400	
1500	YPM2-0915 YPM2-1215		YPM2-1515 YPM2-3615 YPM2-7215 YPM2-1815 YPM2-4215 YPM2-8415 YPM2-2415 YPM2-4815 YPM2-3015 YPM2-6015	
1800	YPM2-0918 YPH2-1218		YPM2-1518 YPM2-3618 YPM2-7218 YPM2-1818 YPM2-4218 YPM2-8418 YPM2-2418 YPM2-4818 YPM2-3018 YPM2-6018	
2100	YPM2-0921 YPM2-1221		YPM2-1521 YPM2-3621 YPM2-7221 YPM2-1821 YPM2-4221 YPM2-8421 YPM2-2421 YPM2-4821 YPM2-3021 YPM2-6021	
2400	YPM2-0924 YPM2-1224		YPM2-1524 YPM2-3624 YPM2-7224 YPM2-1824 YPM2-4224 YPM2-8424 YPM2-2424 YPM2-4824 YPM2-3024 YPM2-6024	
2700	YPM2-0927 YPM2-1227		YPM2-1527 YPM2-3627 YPM2-7227 YPM2-1827 YPM2-4227 YPM2-8427 YPM2-2427 YPM2-4827 YPM2-3027 YPM2-6027	
3000	YPM2-0930 YPM2-1230		YPM2-1530 YPM2-3630 YPM2-7230 YPM2-1830 YPM2-4230 YPM2-8430 YPM2-2430 YPM2-4830 YPM2-3030 YPM2-6030	
大门平面				

注：YPM2-0915 09表示大门宽度900mm，15表示大门高度1500mm

铁艺YPM2型平开围墙大门选用图

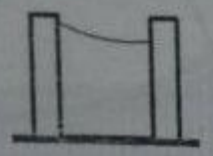
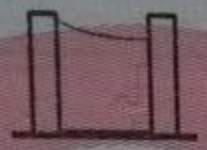
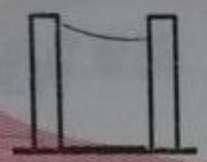
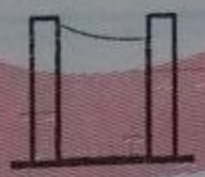
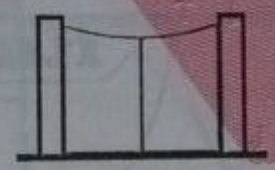
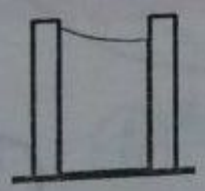
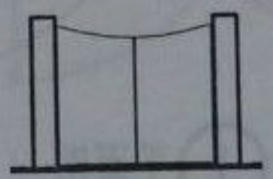
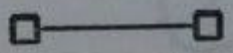
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门高 \ 门洞宽	900-1200		1500-8400	
1500	YPM3-0915 YPM3-1215		YPM3-1515 YPM3-3615 YPM3-7215 YPM3-1815 YPM3-4215 YPM3-8415 YPM3-2415 YPM3-4815 YPM3-3015 YPM3-6015	
1800	YPM3-0918 YPM3-1218		YPM3-1518 YPM3-3618 YPM3-7218 YPM3-1818 YPM3-4218 YPM3-8418 YPM3-2418 YPM3-4818 YPM3-3018 YPM3-6018	
2100	YPM3-0921 YPM3-1221		YPM3-1521 YPM3-3621 YPM3-7221 YPM3-1821 YPM3-4221 YPM3-8421 YPM3-2421 YPM3-4821 YPM3-3021 YPM3-6021	
2400	YPM3-0924 YPM3-1224		YPM3-1524 YPM3-3624 YPM3-7224 YPM3-1824 YPM3-4224 YPM3-8424 YPM3-2424 YPM3-4824 YPM3-3024 YPM3-6024	
2700	YPM3-0927 YPM3-1227		YPM3-1527 YPM3-3627 YPM3-7227 YPM3-1827 YPM3-4227 YPM3-8427 YPM3-2427 YPM3-4827 YPM3-3027 YPM3-6027	
3000	YPM3-0930 YPM3-1230		YPM3-1530 YPM3-1530 YPM3-7230 YPM3-1830 YPM3-4230 YPM3-8430 YPM3-2430 YPM3-4830 YPM3-3030 YPM3-6030	
大门平面				

注：YPM3-0915 09表示大门宽度900mm，15表示大门高度1500mm

铁艺YPM3型平开围墙大门选用图

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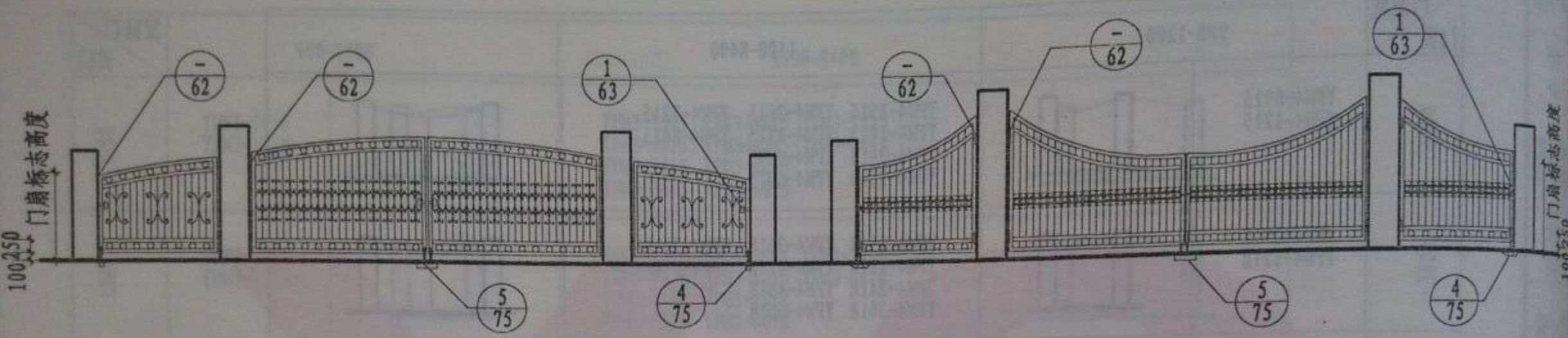
门高 \ 门洞宽	900-1200		1500-8400	
1500	YPM4-0915 YPM4-1215		YPM4-1515 YPM4-3615 YPM4-7215 YPM4-1815 YPM4-4215 YPM4-8415 YPM4-2415 YPM4-4815 YPM4-3015 YPM4-6015	
1800	YPM4-0918 YPM4-1218		YPM4-1518 YPM4-3618 YPM4-7218 YPM4-1818 YPM4-4218 YPM4-8418 YPM4-2418 YPM4-4818 YPM4-3018 YPM4-6018	
2100	YPM4-0921 YPM4-1221		YPM4-1521 YPM4-3621 YPM4-7221 YPM4-1821 YPM4-4221 YPM4-8421 YPM4-2421 YPM4-4821 YPM4-3021 YPM4-6021	
2400	YPM4-0924 YPM4-1224		YPM4-1524 YPM4-3624 YPM4-7224 YPM4-1824 YPM4-4224 YPM4-8424 YPM4-2424 YPM4-4824 YPM4-3024 YPM4-6024	
2700	YPM4-0927 YPM4-1227		YPM4-1527 YPM4-3627 YPM4-7227 YPM4-1827 YPM4-4227 YPM4-8427 YPM4-2427 YPM4-4827 YPM4-3027 YPM4-6027	
3000	YPM4-0930 YPM4-1230		YPM4-1530 YPM4-3630 YPM4-7230 YPM4-1830 YPM4-4230 YPM4-8430 YPM4-2430 YPM4-4830 YPM4-3030 YPM4-6030	
大门平面				

注：YPM4-0915 09表示大门宽度900mm，15表示大门高度1500mm

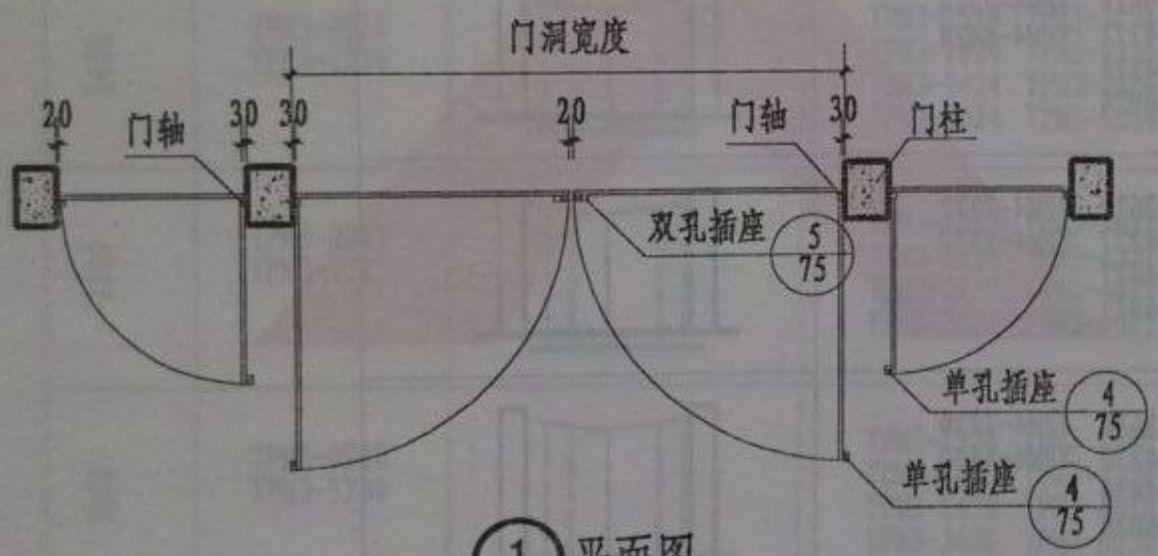
YPM1、2、3、4四种型式仅为立面型式不同，构造基本相同。

铁艺YPM4型平开围墙大门选用图

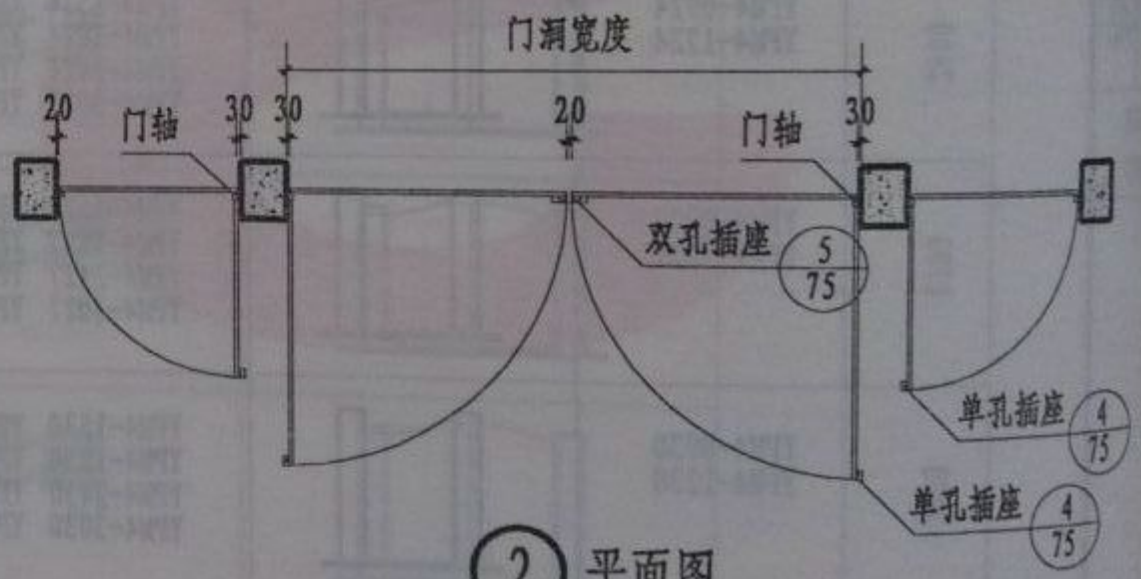
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内立面图　　内立面图



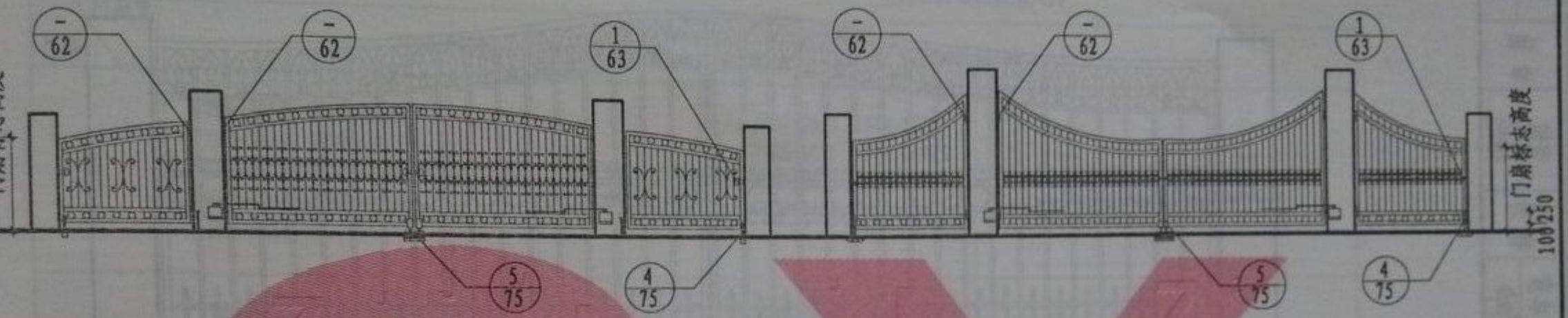
① 平面图

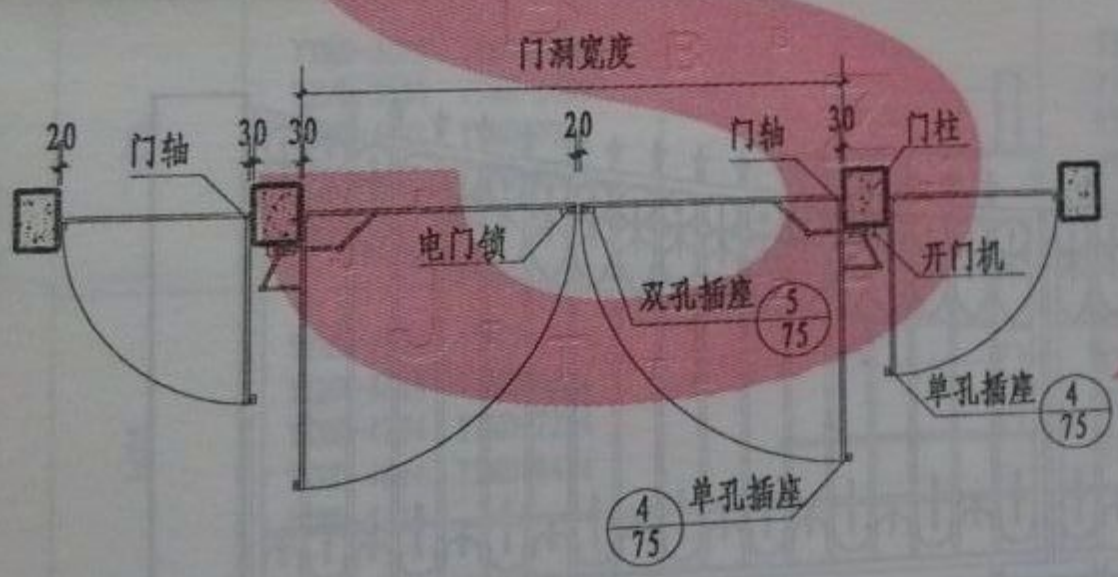


② 平面图

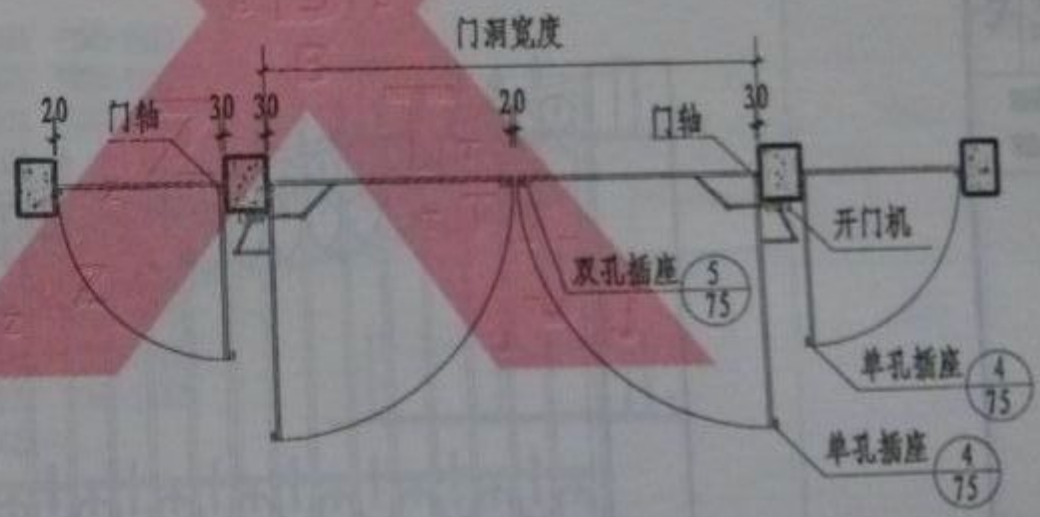
铁艺平开围墙大门平、立面图	图集号	12J9-1
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审核	郭彦	郭彦
校对	张恒	张恒
设计	齐卓彦	齐卓彦
制图		



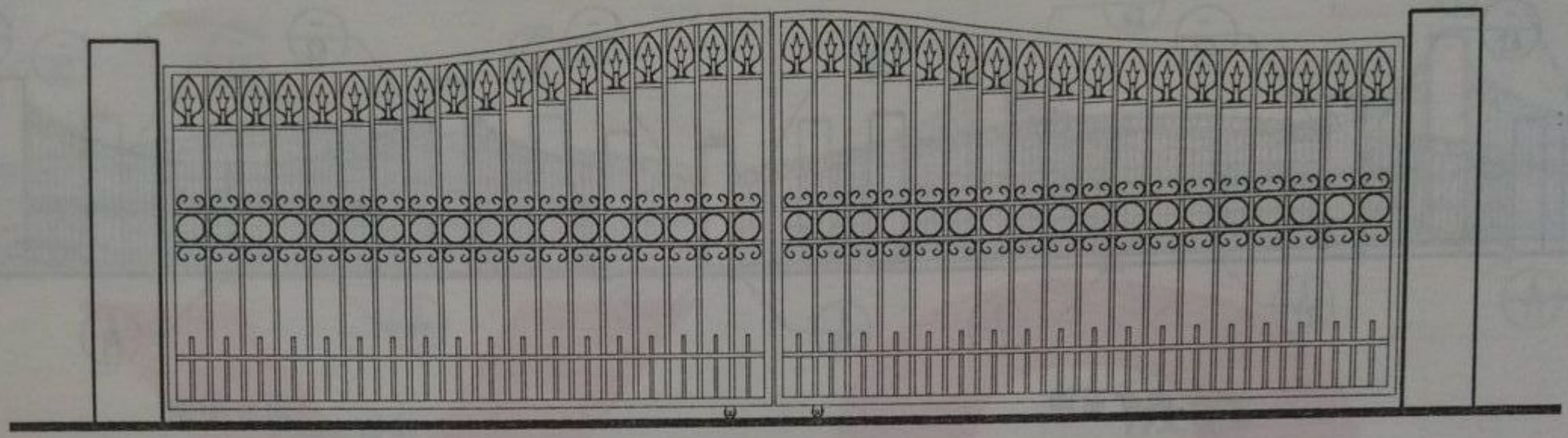


① 平面图

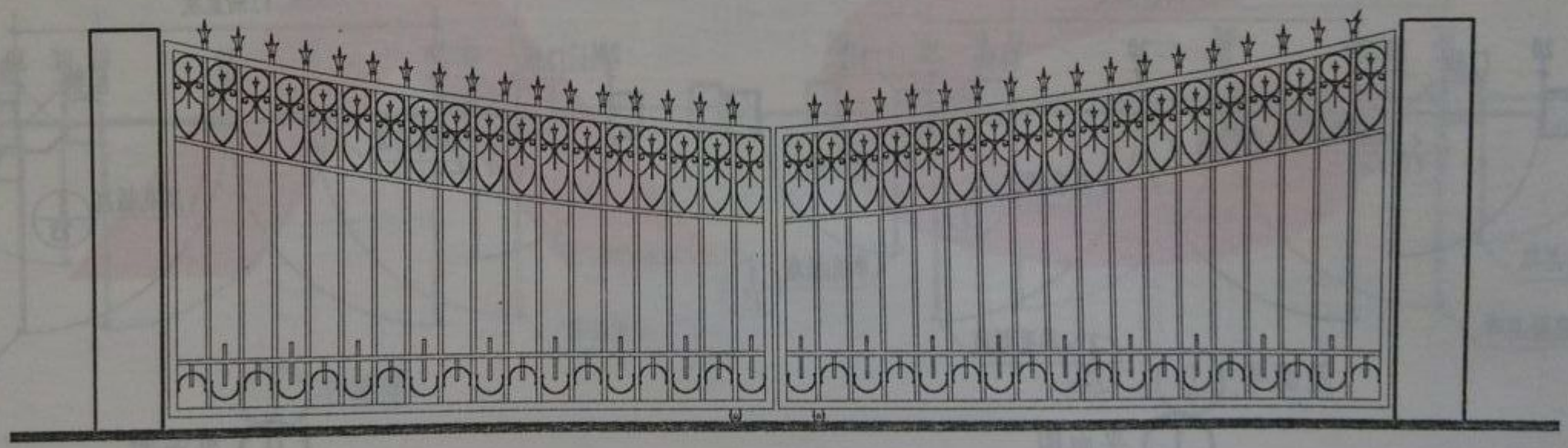


② 平面图

铁艺电动平开围墙大门平、立面图	图集号	12J9-1
	页次	90

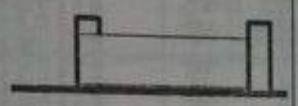
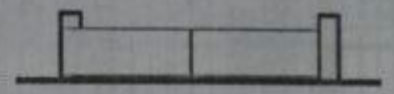
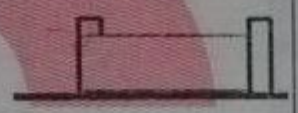
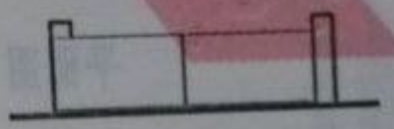
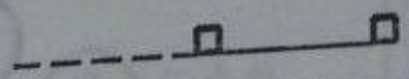
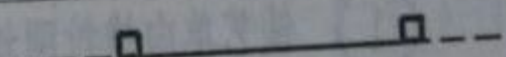


① 门立面图



② 门立面图

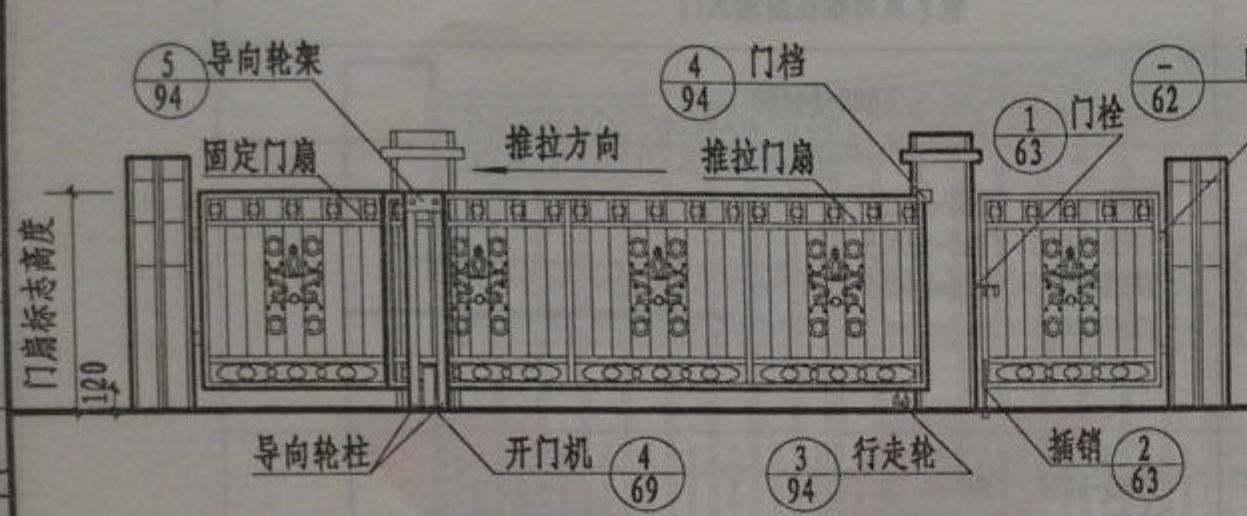
铁艺平开围墙大门花饰示例图	图集号	12J9-1
	页次	91

门种类 / 门洞宽 / 门高	铁艺单向推拉围墙大门		铁艺双向推拉围墙大门	
	3000-8400		6000-14400	
1500	YTMD-3015 YTMD-6015 YTMD-3615 YTMD-6615 YTMD-4215 YTMD-7215 YTMD-4815 YTMD-8415 YTMD-5415		YTMS-6015 YTMS-9615 YTMS-6615 YTMS-12015 YTMS-7215 YTMS-14415 YTMS-8415	
1800	YTMD-3018 YTMD-6018 YTMD-3618 YTMD-6618 YTMD-4218 YTMD-7218 YTMD-4818 YTMD-8418 YTMD-5418		YTMS-6018 YTMS-9618 YTMS-6618 YTMS-12018 YTMS-7218 YTMS-14418 YTMS-8418	
2100	YTMD-3021 YTMD-6021 YTMD-3621 YTMD-6621 YTMD-4221 YTMD-7221 YTMD-4821 YTMD-8421 YTMD-5421		YTMS-6021 YTMS-9621 YTMS-6621 YTMS-12021 YTMS-7221 YTMS-14421 YTMS-8421	
2400	YTMD-3024 YTMD-6024 YTMD-3624 YTMD-6624 YTMD-4224 YTMD-7224 YTMD-4824 YTMD-8424 YTMD-5424		YTMS-6024 YTMS-9624 YTMS-6624 YTMS-12024 YTMS-7224 YTMS-14424 YTMS-8424	
大门平面				

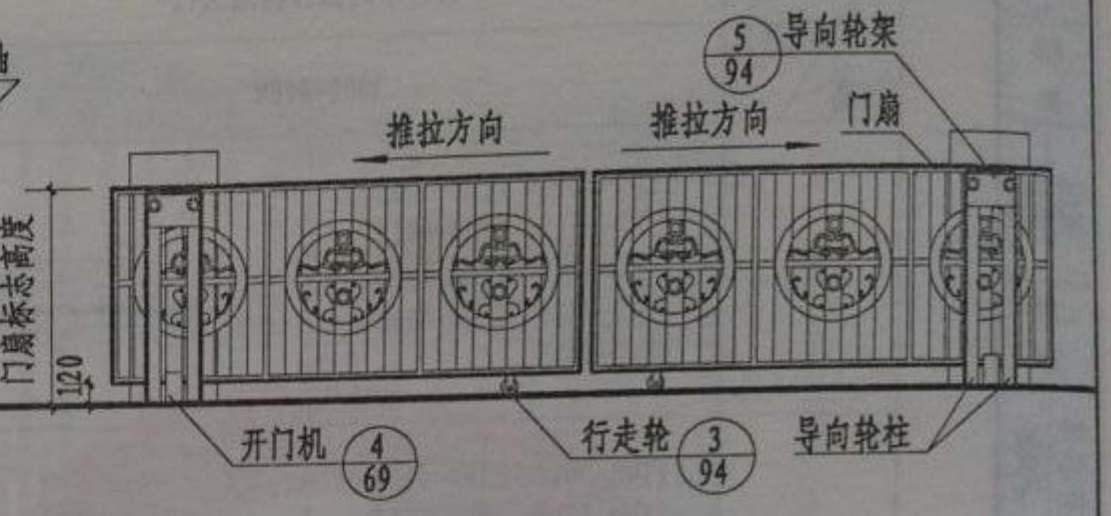
注：YTMD-3015 30表示大门宽度3000mm，15表示大门高度1500mm

铁艺单、双向推拉围墙大门选用图

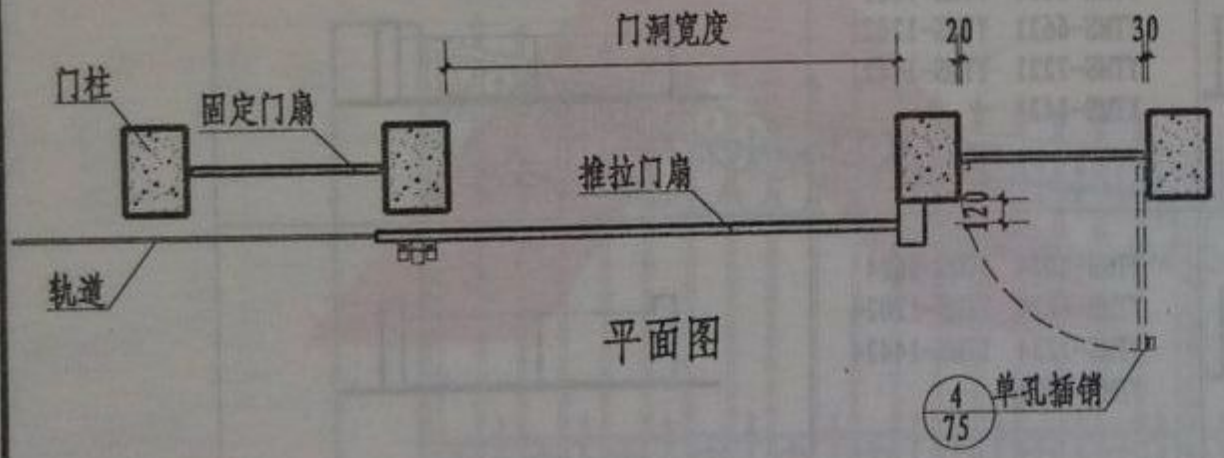
图集号	12J9-1
页次	92



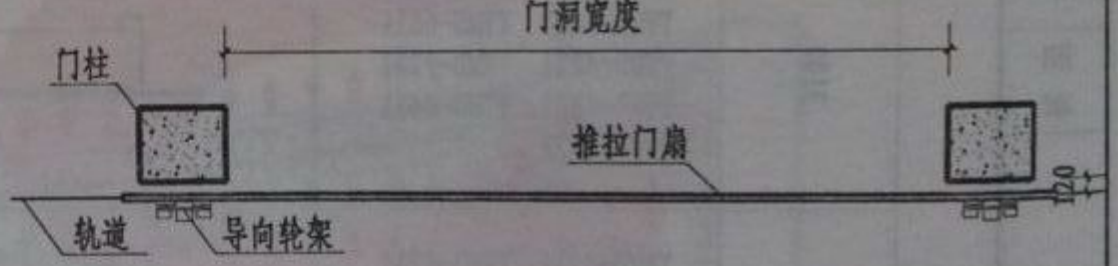
内立面图



内立面图



平面图



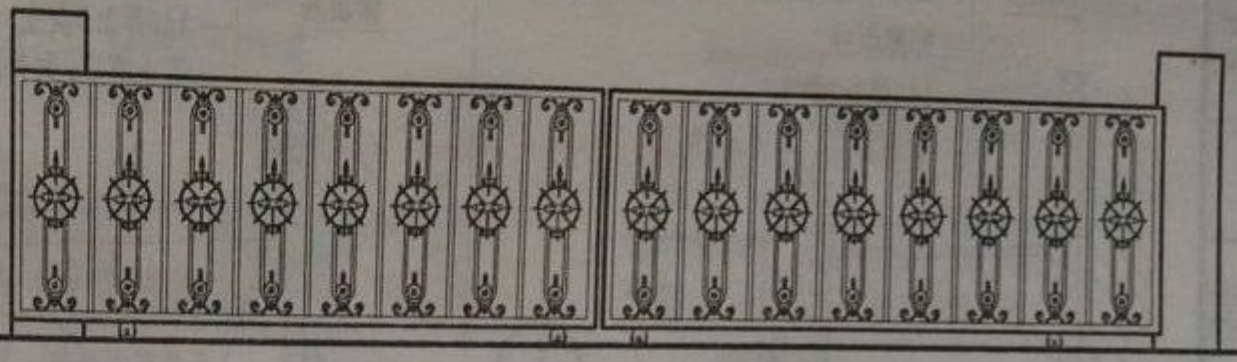
平面图

① 铁艺单向推拉围墙大门

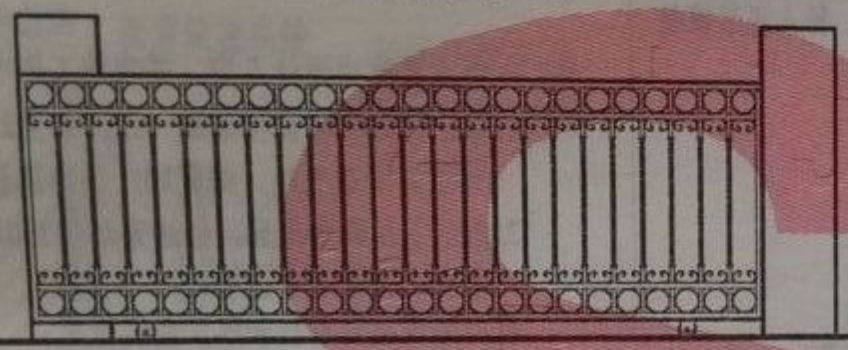
② 铁艺双向推拉围墙大门

铁艺单向推拉围墙大门平、立面图	图集号	12J9-1
铁艺双向推拉围墙大门平、立面图	页次	93

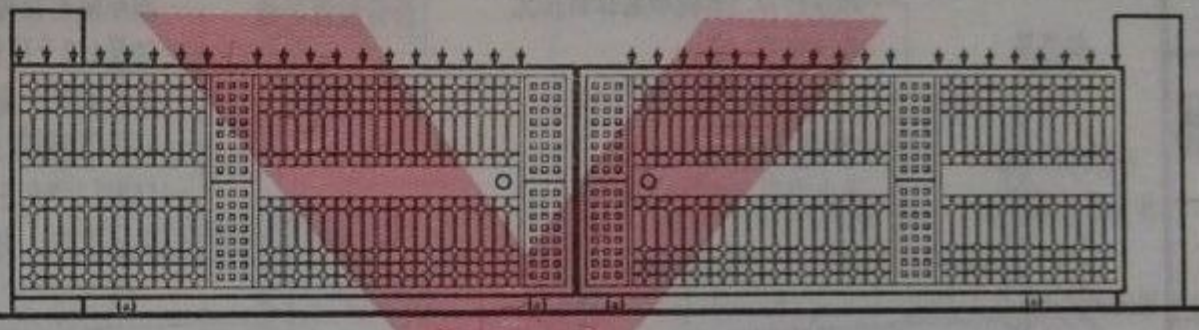
门立面图（一）



门立面图（一）

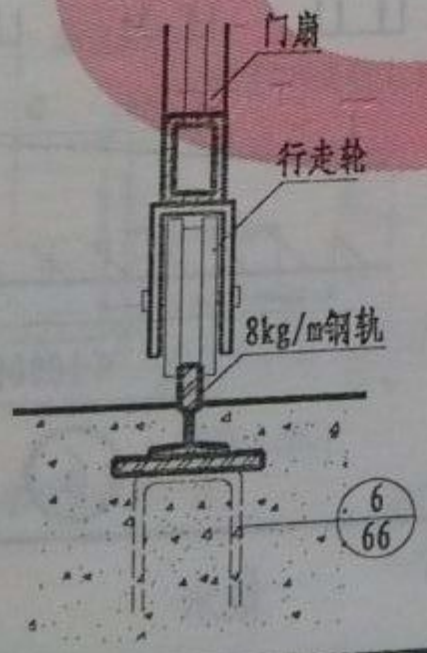


门立面图（二）

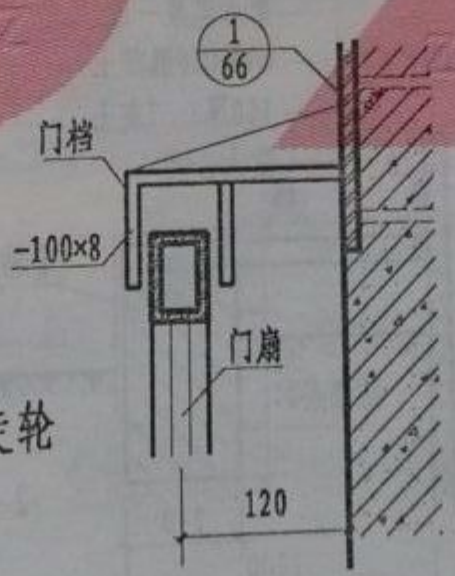


门立面图（二）

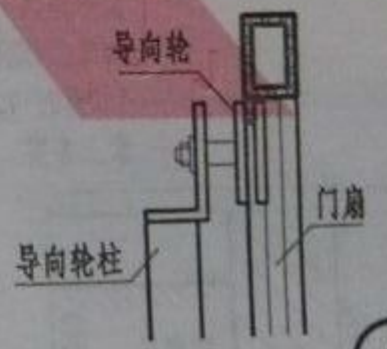
① 铁艺单向推拉围墙大门示例图



③ 行走轮



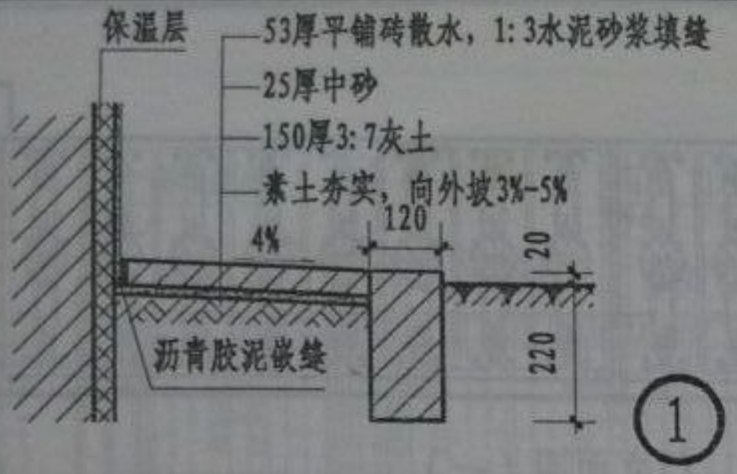
② 铁艺双向推拉围墙大门示例图



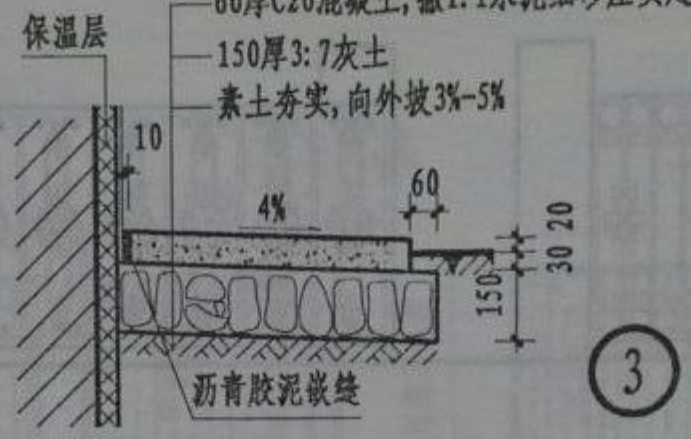
④ 门档

⑤ 导向轮

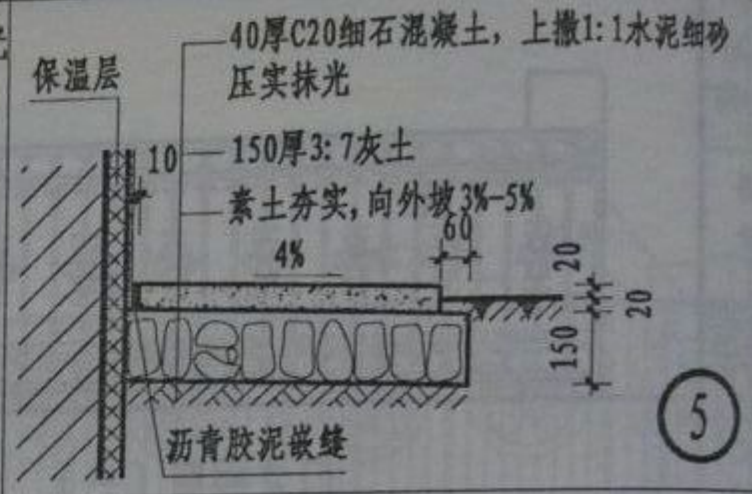
铁艺单、双向推拉围墙大门示例图 行走轮、门档、导向轮节点图	图集号	12J9-1
	页次	94



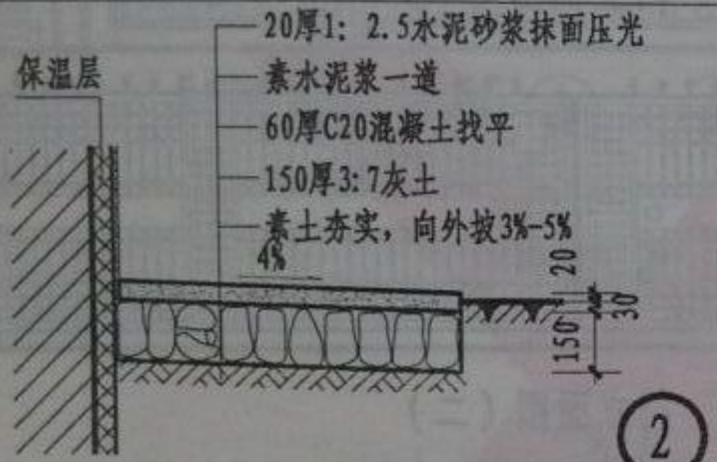
①



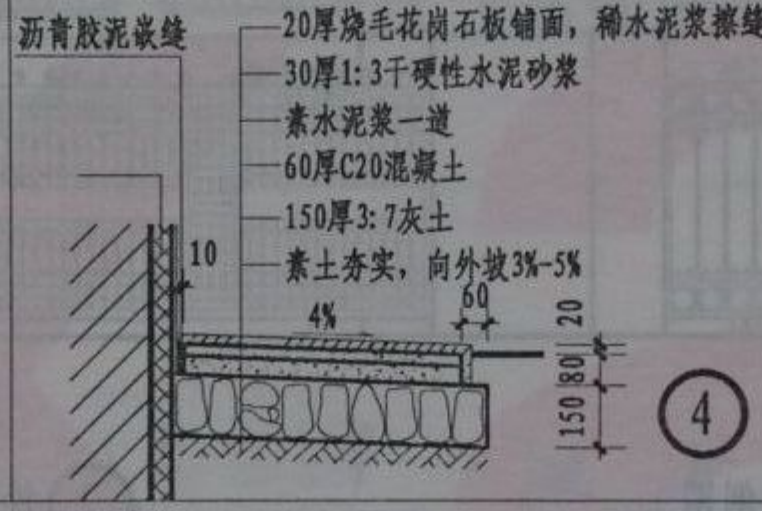
③



⑤

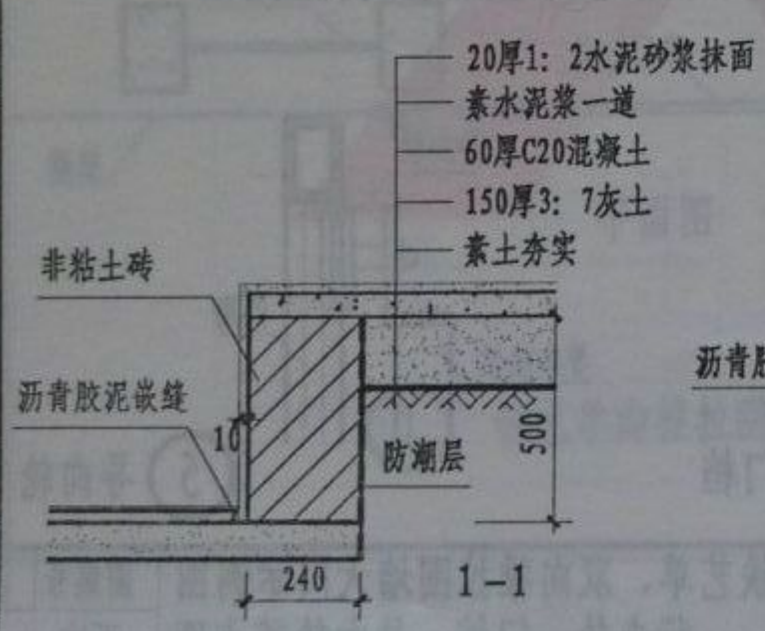


②

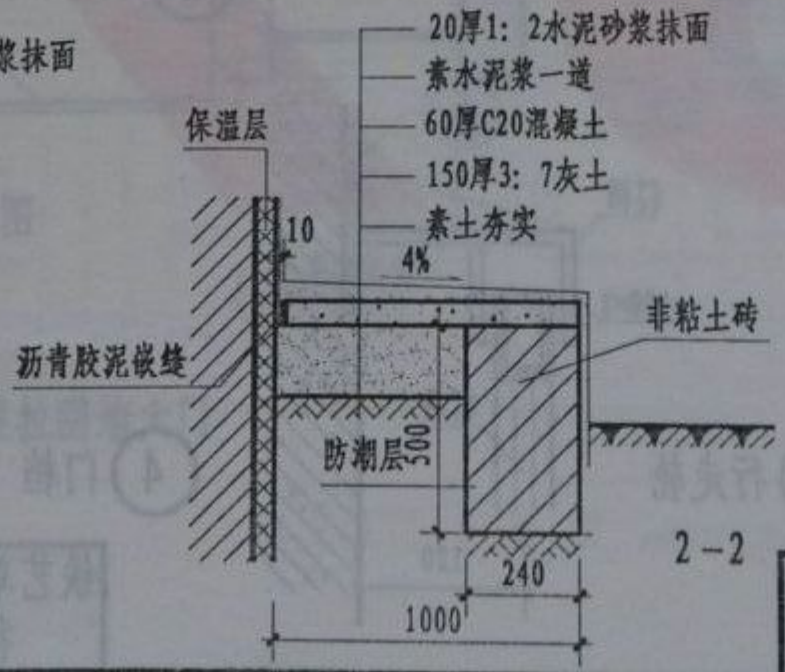


④

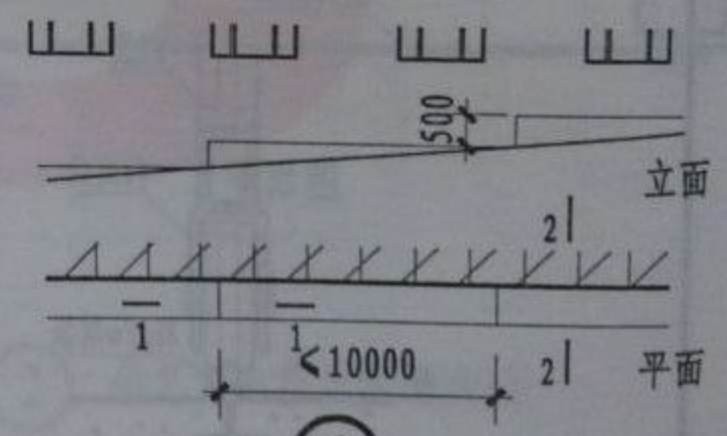
注：1. 散水宽度由设计人定，并在施工图中注明。
2. 散水每隔6m需设伸缩缝一道，缝宽20，散水与外墙间设通长缝，缝宽10，缝内填沥青胶泥。
3. 散水下如设防冻层，做法为加铺300厚中粗砂，需在工程设计中说明。
4. 外墙保温层材料和厚度由设计定。
5. 湿陷性黄土地区散水坡度应＞5%。



1－1

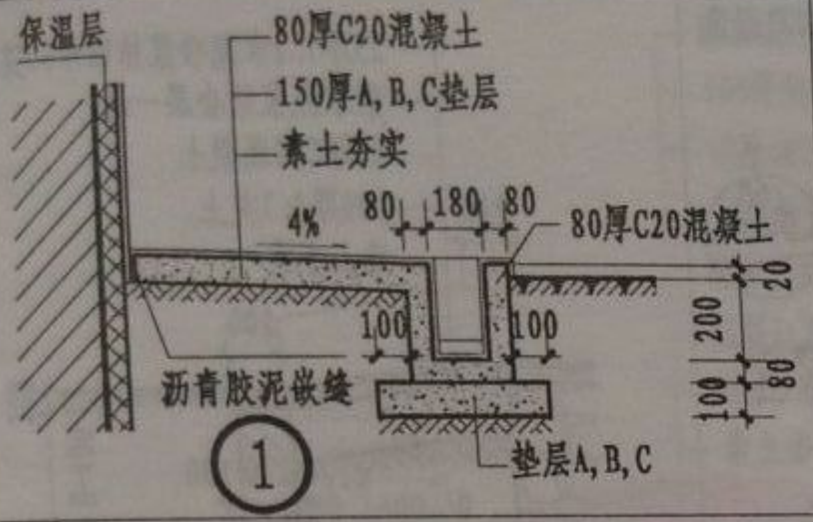


2－2

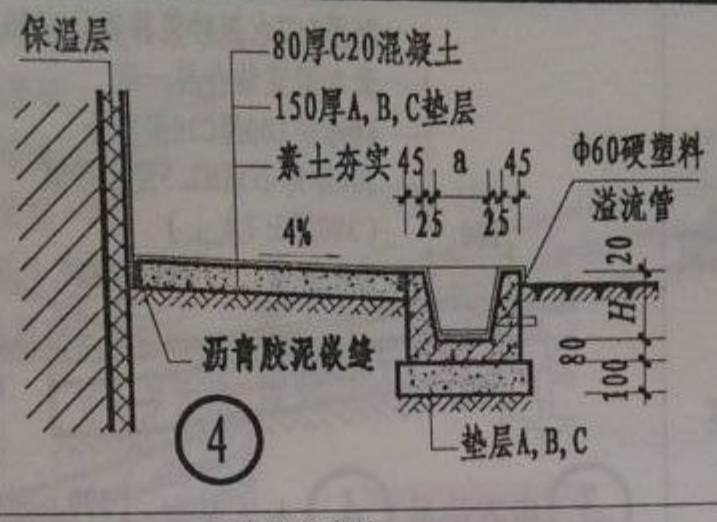


⑥

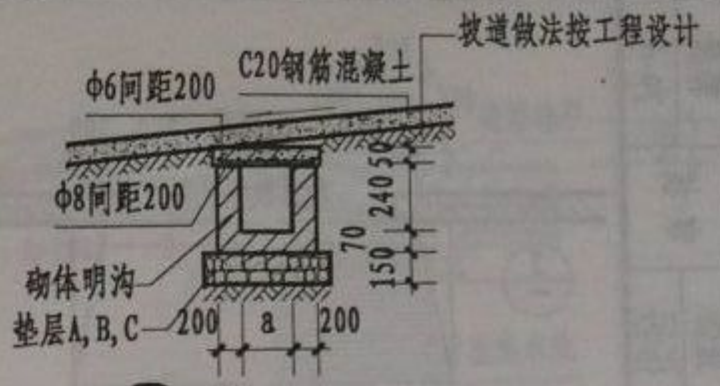
散水	图集号	12J9-1
	页次	95



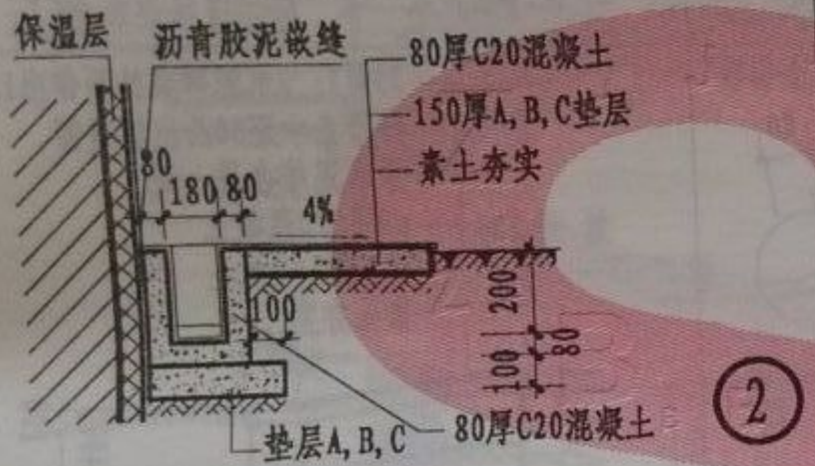
①



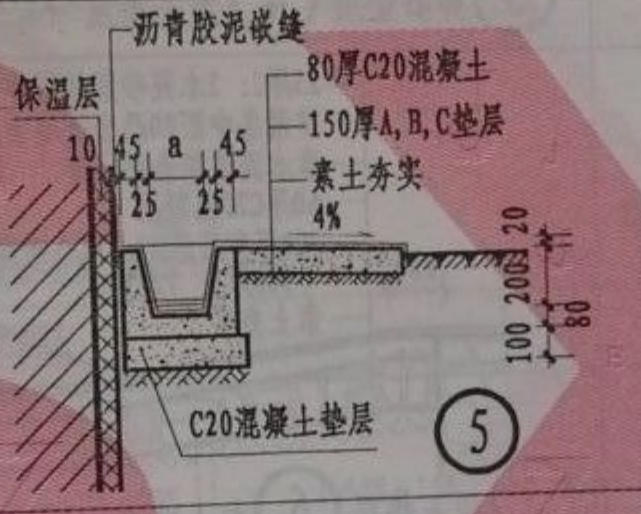
④



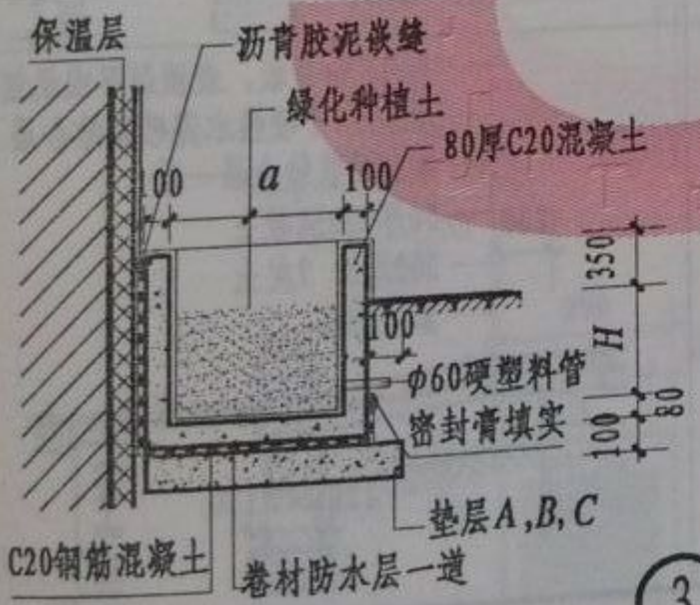
⑦ 明沟通过坡道或台阶



②



⑤



③



⑥ 明沟通过坡道或台阶

注1: 排水沟面层为1:2.5水泥砂浆面做法:

1. 5厚1:2.5水泥砂浆抹面（内掺5%防水粉）
2. 排水沟宽度（a＜300），深度H按工程设计
3. 排水沟纵向坡度i=1%
4. 散水明沟下如设防冻层，作法为加铺300厚中砂
5. 散水宽度由设计人定
6. 混凝土排水沟沿长度方向每6m设伸缩缝

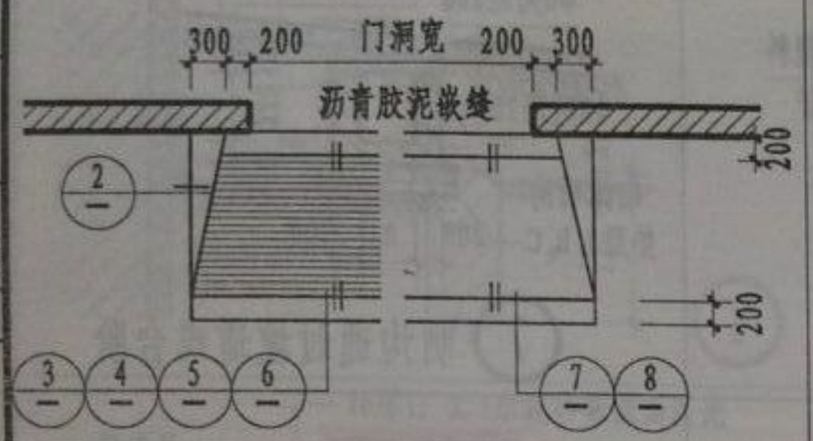
注2: 垫层做法分类:

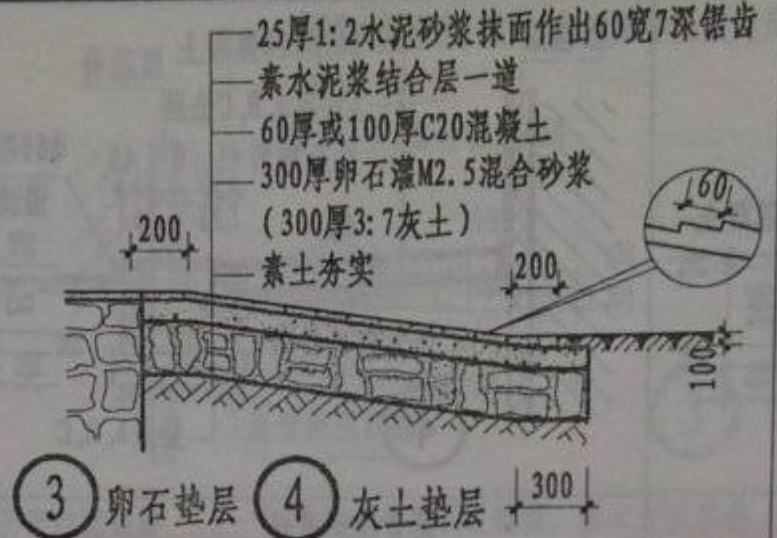
垫层A 100厚C20或碎砖夯实灌M2.5混合砂浆，简称“碎石垫层”

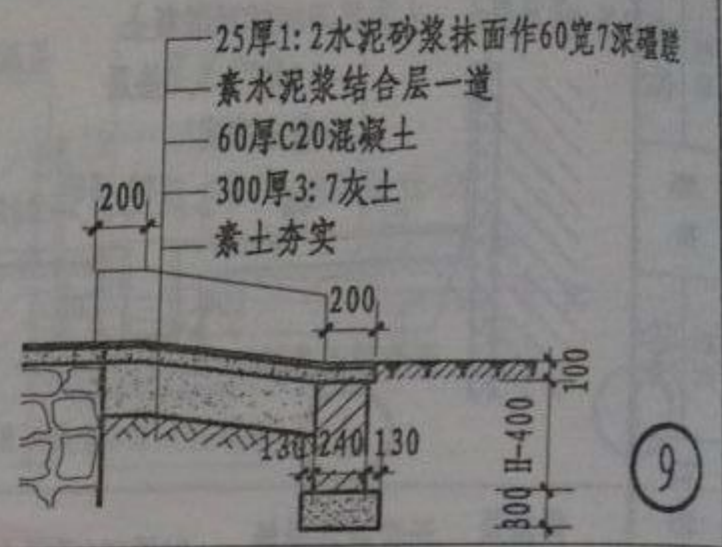
垫层B 150厚卵石灌M2.5混合砂浆，简称“卵石垫层”

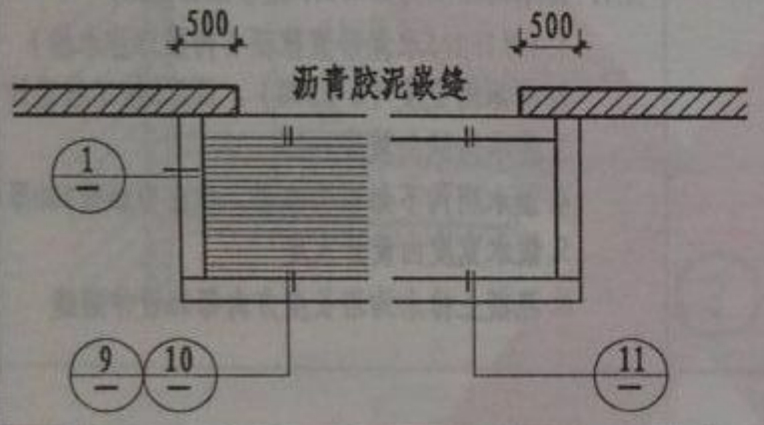
垫层C 150厚3:7灰土，简称“灰土垫层”

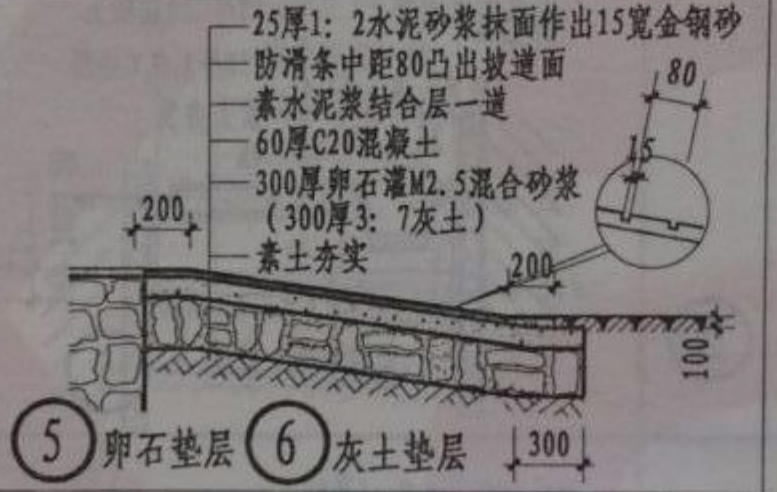
明沟散水、绿化散水	图集号	12J9-1
	页次	96

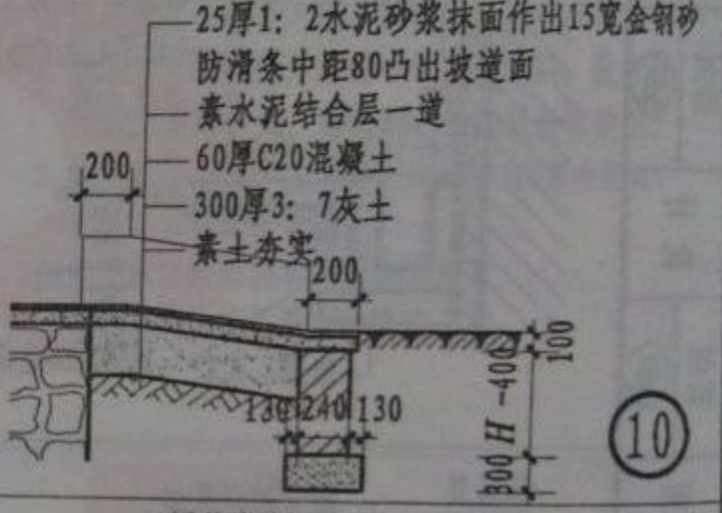


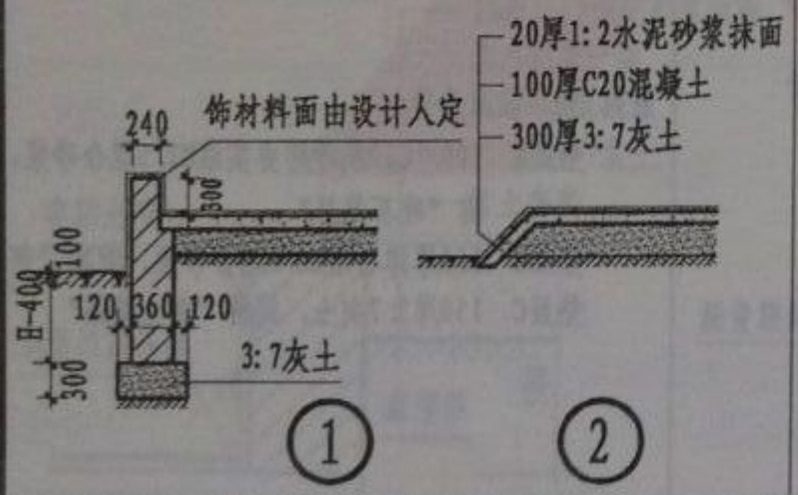


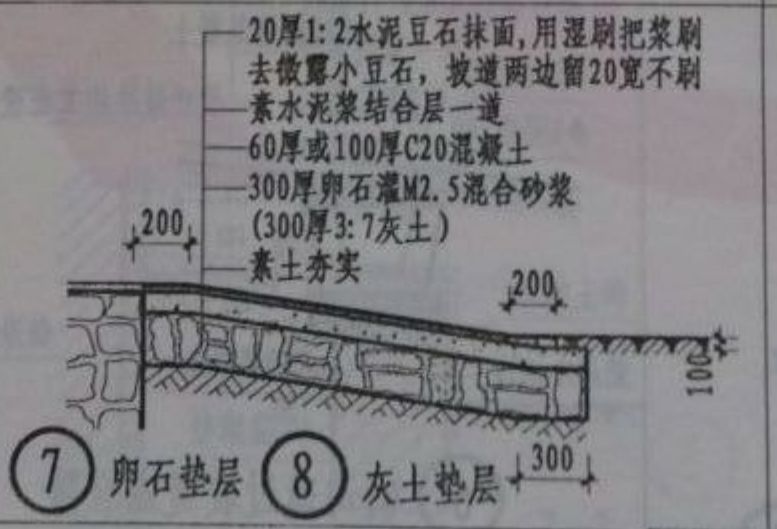


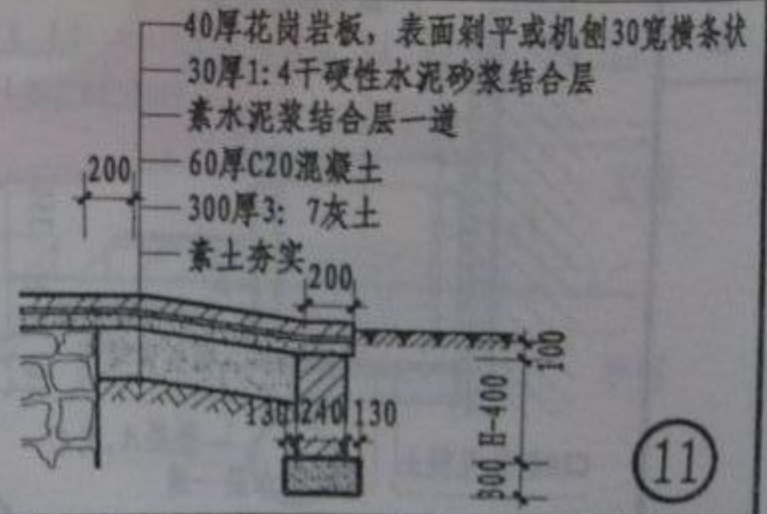






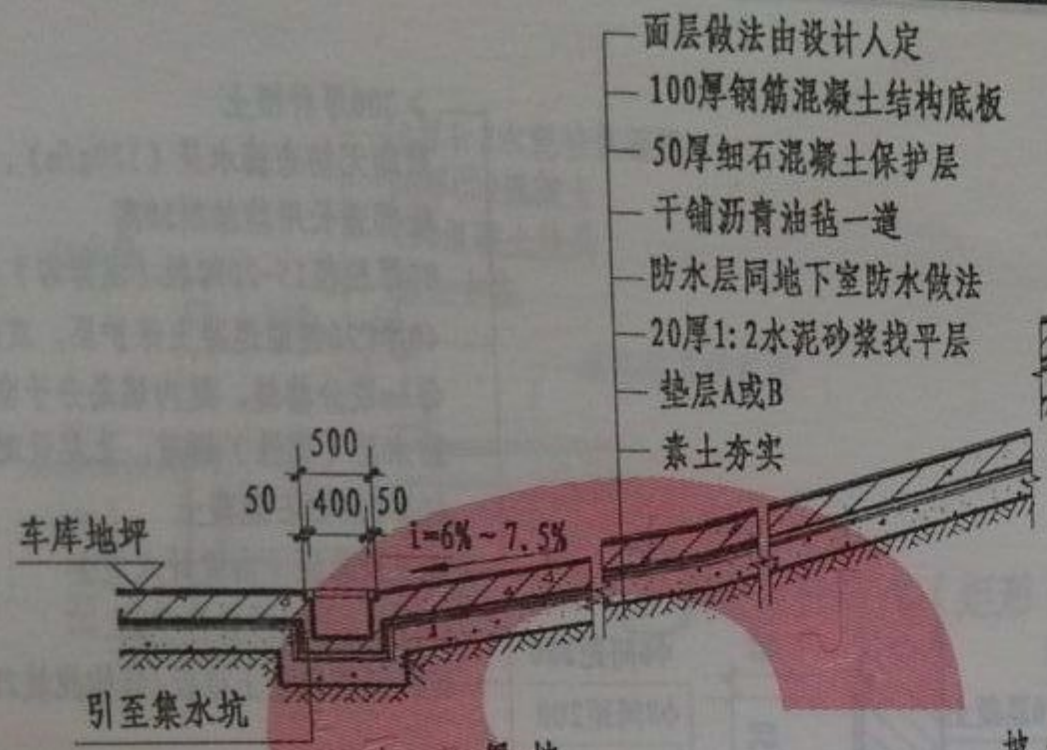


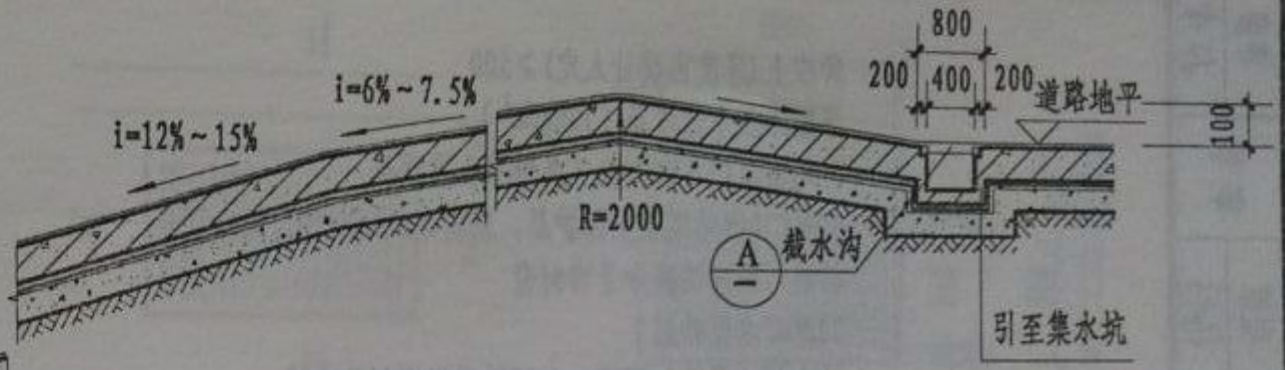




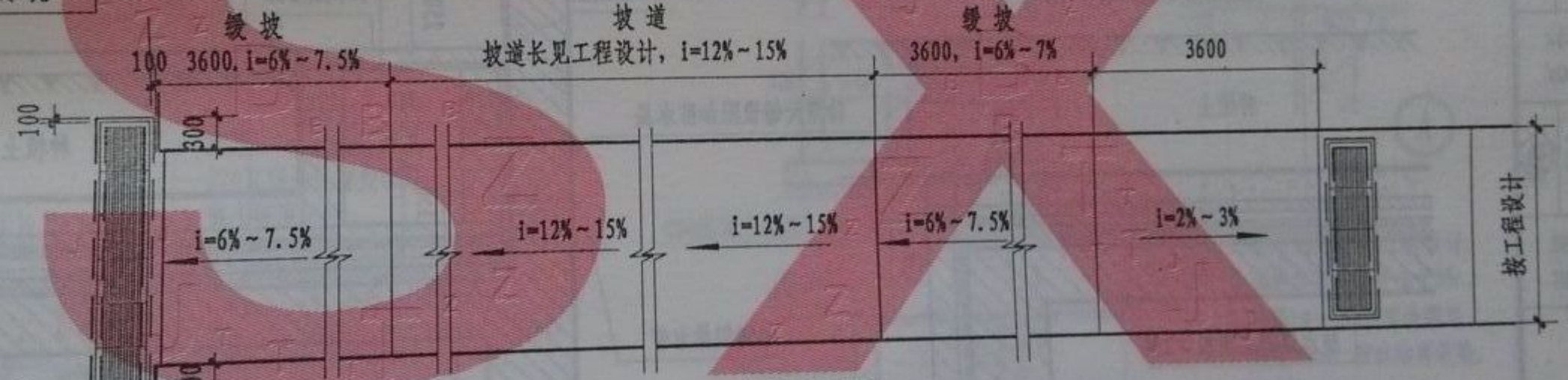
注: 1.坡道下如设防冻层,作法为加铺300厚中砂,须在工程设计中说明;
2.坡道平面尺寸、室外高差、坡度、基础埋深H按单项工程设计.
3、残疾人不选用礓磋面层的坡道.

坡道 礓磋	图集号	12J9-1
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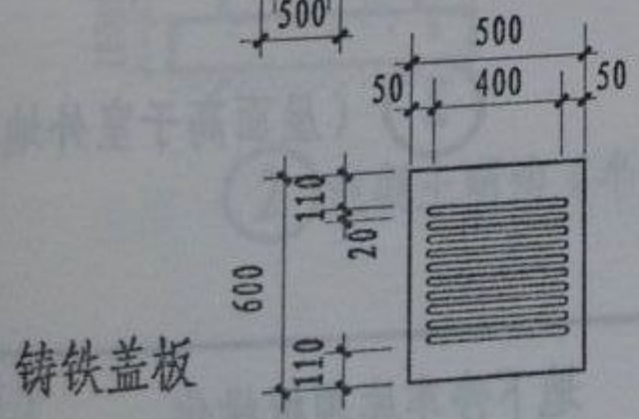


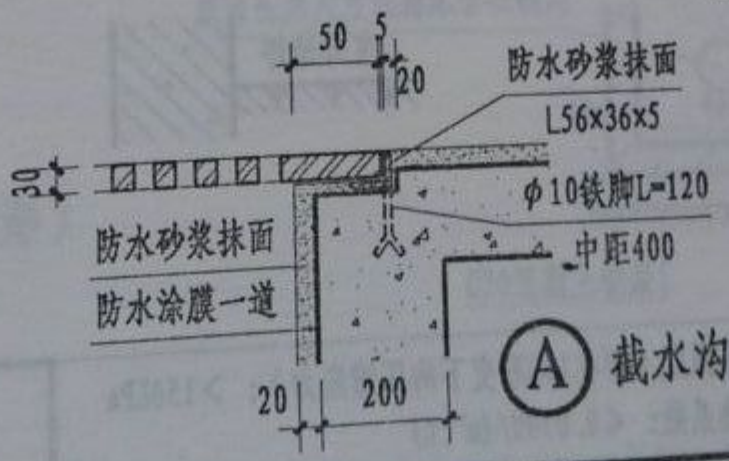


坡道剖面图



坡道平面图





注：1.严寒地区于垫层下增加300厚防冻砂(中、粗砂)；

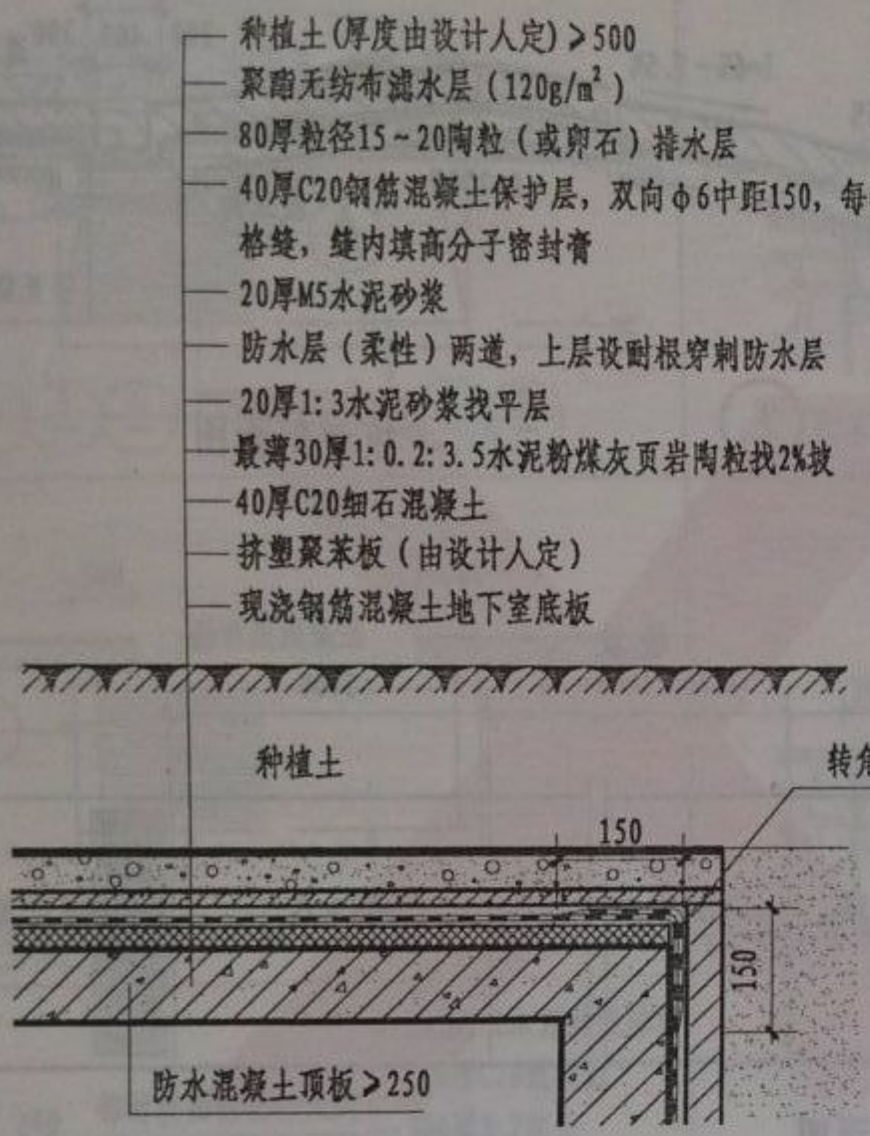
2.垫层做法：垫层A 100厚C20或碎砖夯实灌M2.5混合砂浆，简称“碎石垫层”；

垫层B 150厚卵石灌M2.5混合砂浆，简称“卵石垫层”；

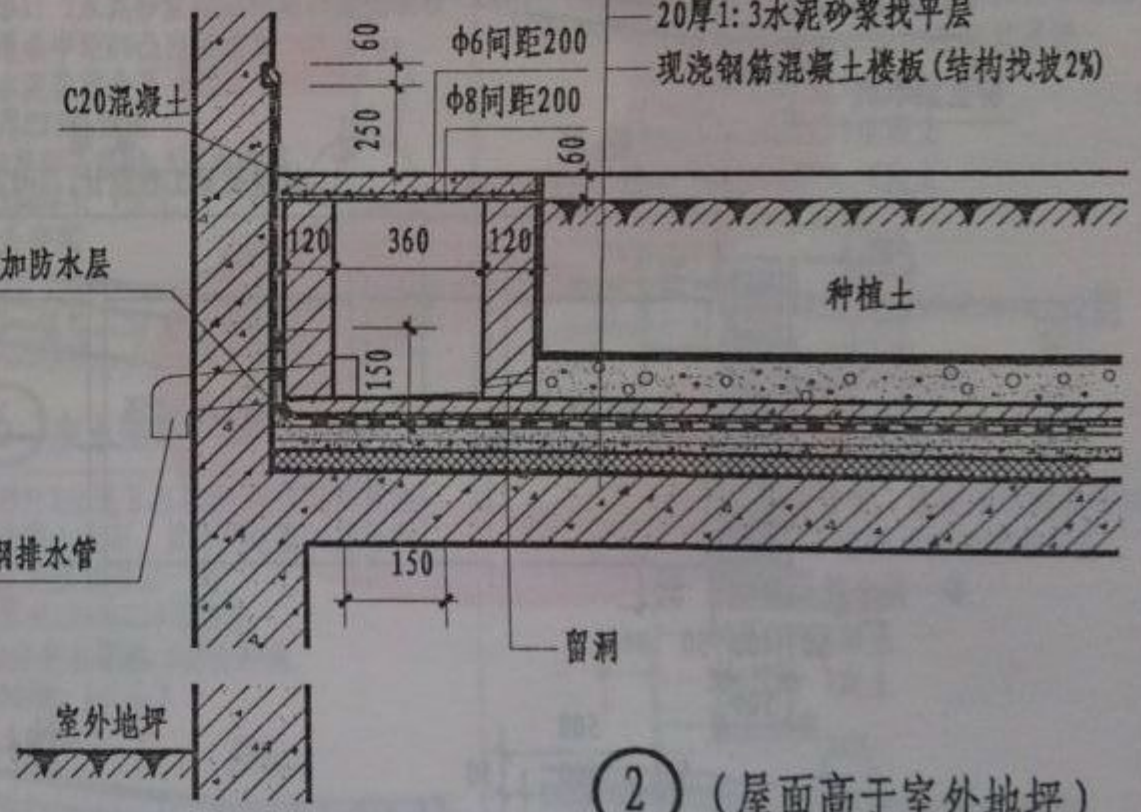
垫层C 150厚3:7灰土，简称“灰土垫层”。

3.坡道的缓坡坡度应为坡道坡度的1/2.

汽车入地下停车库坡道	图集号	12J9-1
	页次	98



① （屋面低于室外地坪）



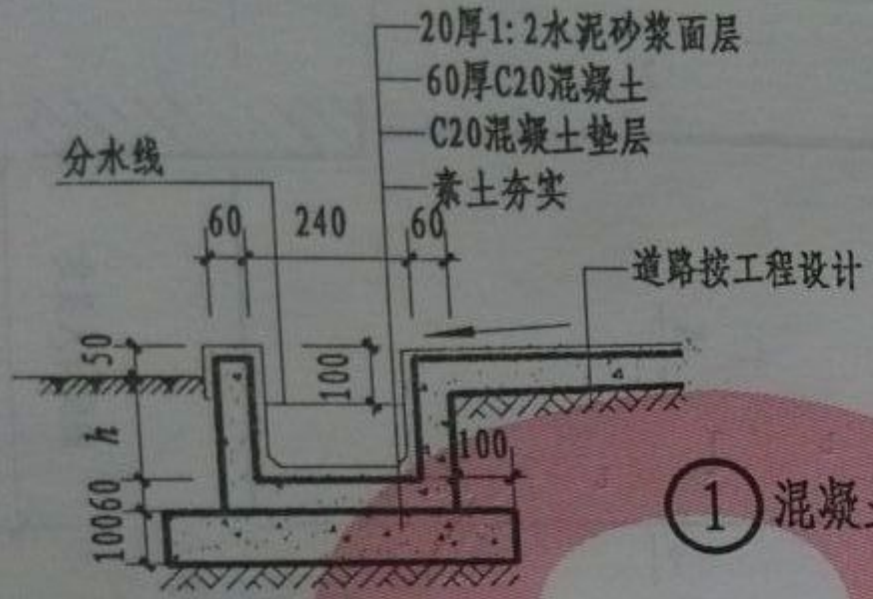
② （屋面高于室外地坪）

说明：防水层做法及保温层厚度由设计人定。

挤塑聚苯板技术性能要求：表观密度：＞25kg/m³　压缩强度（即在10%形变下的压缩应力）：＞150KPa
吸水率：＜2%　导热系数：＜0.030W/(m².K)

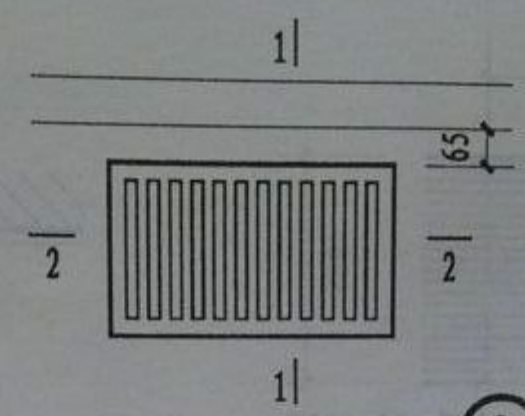
地下停车库顶板绿化

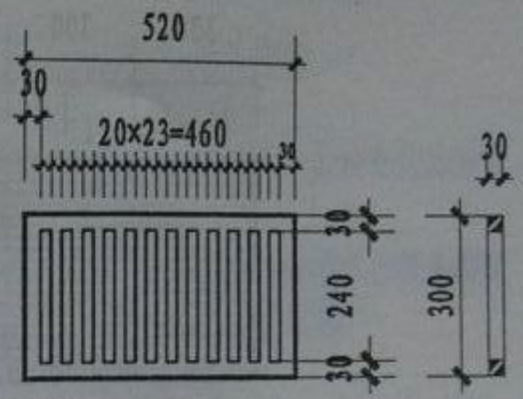
图集号	12J9-1
页次	99



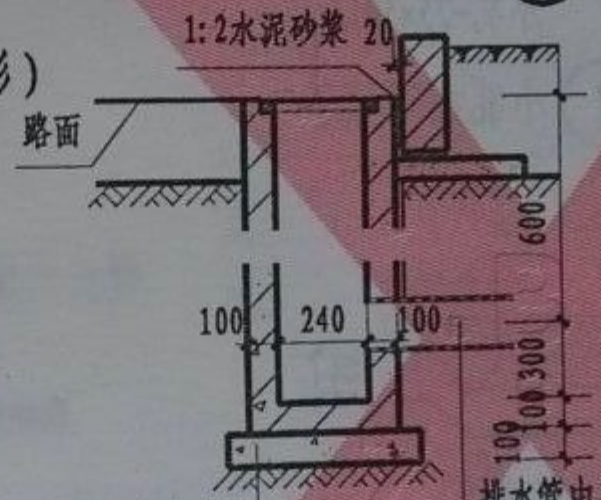
① 混凝土明沟（矩形）

② 混凝土明沟（半圆形）

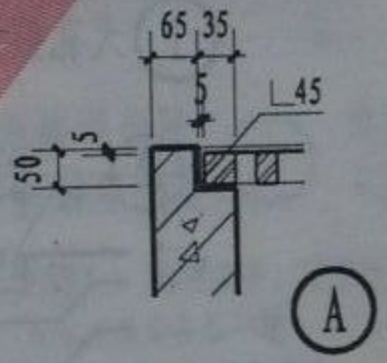




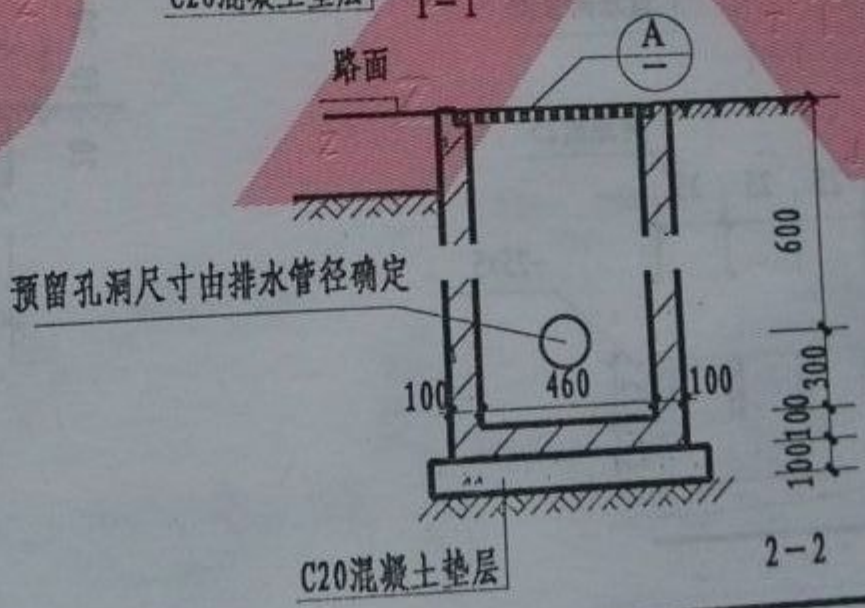
③ 雨水箅子



1-1



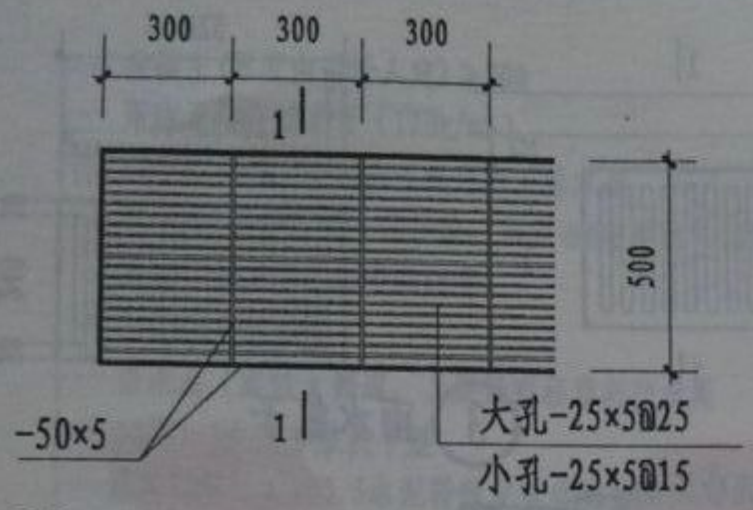
A



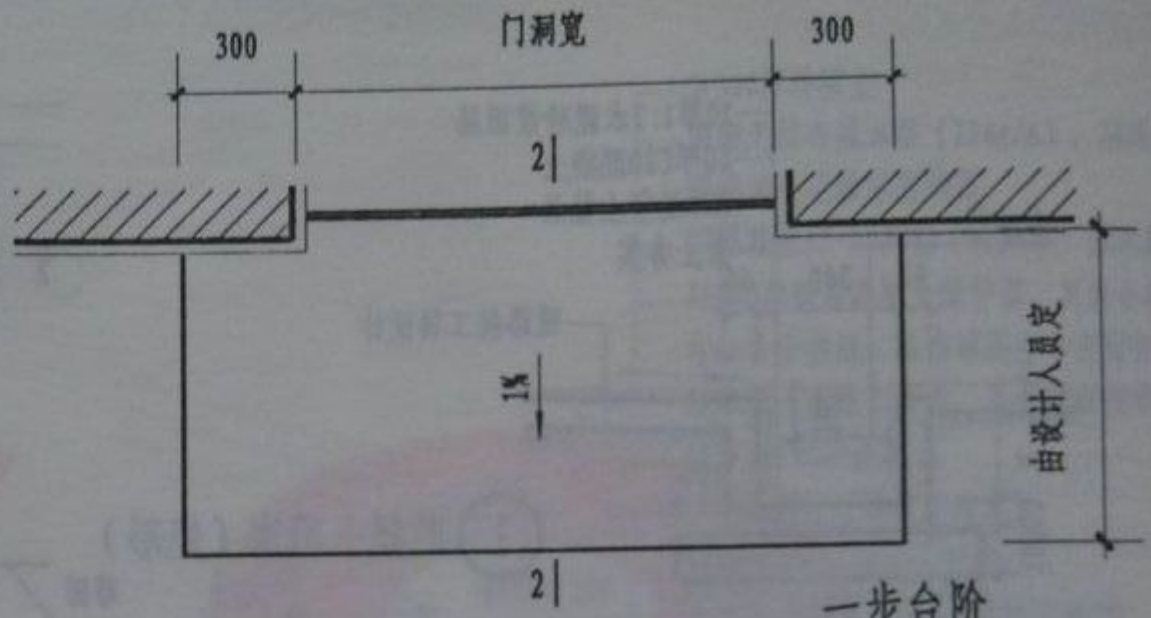
2-2

注：1. 排水明沟深h按工程设计.
2. 明沟纵向坡度不小于5‰.
3. 每隔10～15m设置伸缩缝
缝宽20mm，防水油膏嵌缝.
4. 路面排水井间距≤50m.
5. 水井采用C20细石混凝土预制，混凝土内配φ6钢筋双向中距200.
6. 排水管就位后，与水井缝隙用1:1水泥砂浆勾缝.
7. 严寒及寒冷地区采用φ100镀锌钢管.

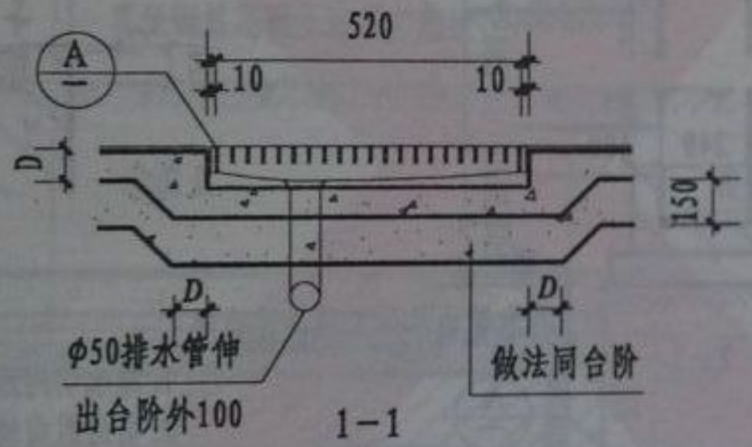
排水明沟、排水井	图集号	12J9-1
	页次	100



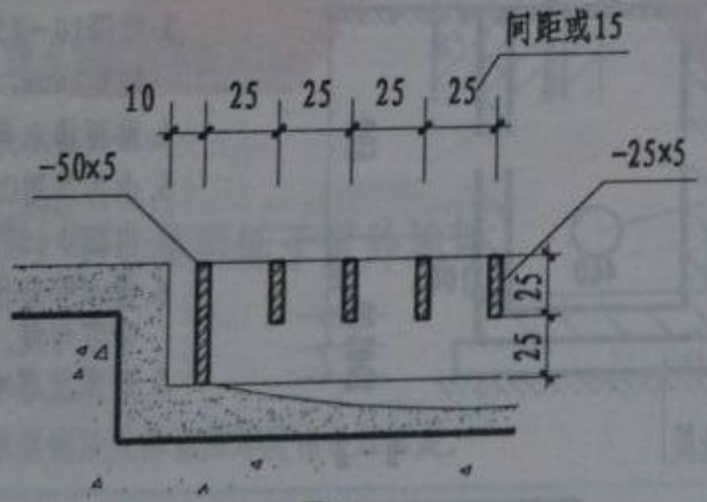
① 大孔擦泥箅子 ② 小孔擦泥箅子



一步台阶

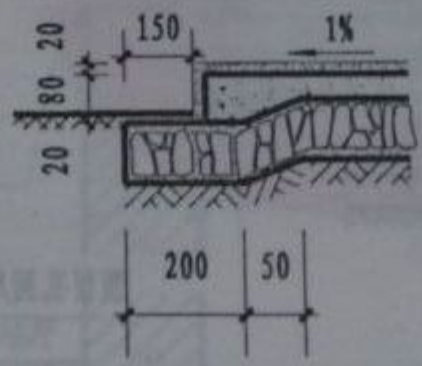


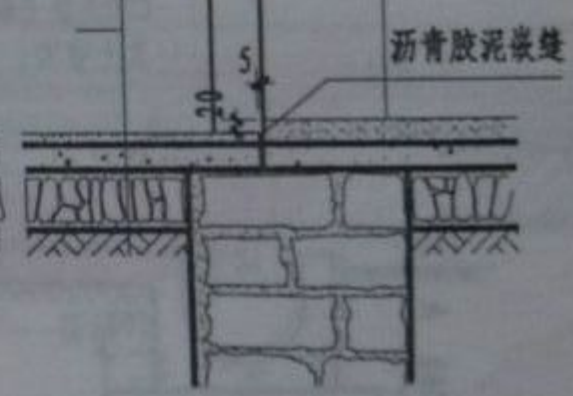
1—1



A

20厚1：2水泥砂浆抹面
素水泥结合层一道
50厚C20现浇混凝土
100厚卵石灌M2.5混合砂浆
(150厚3：7灰土)
素土夯实



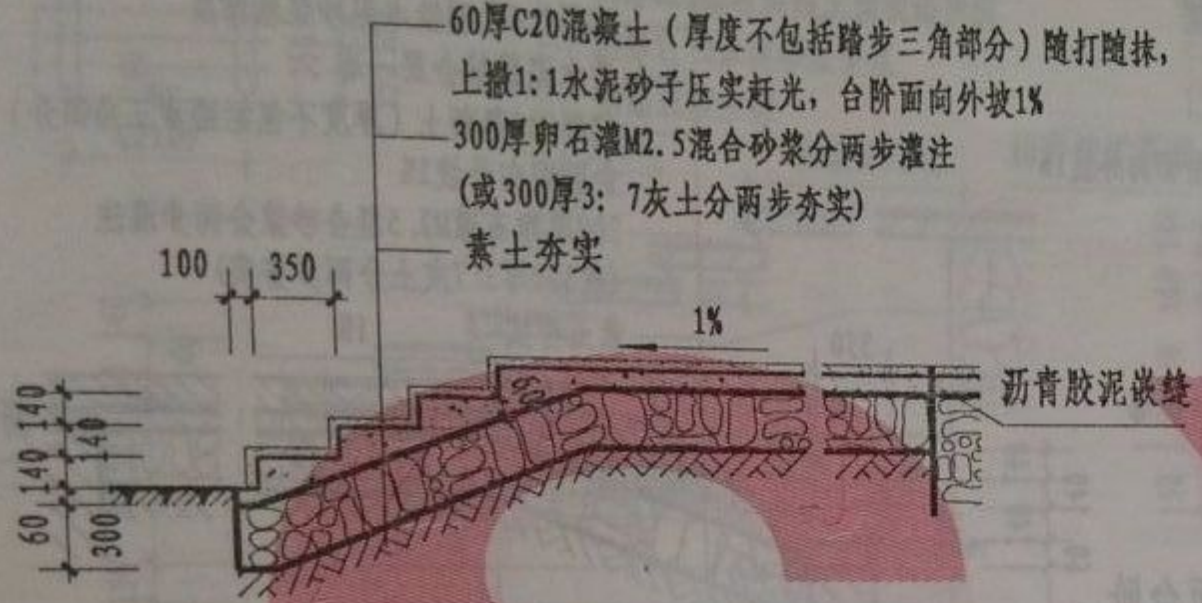


2—2

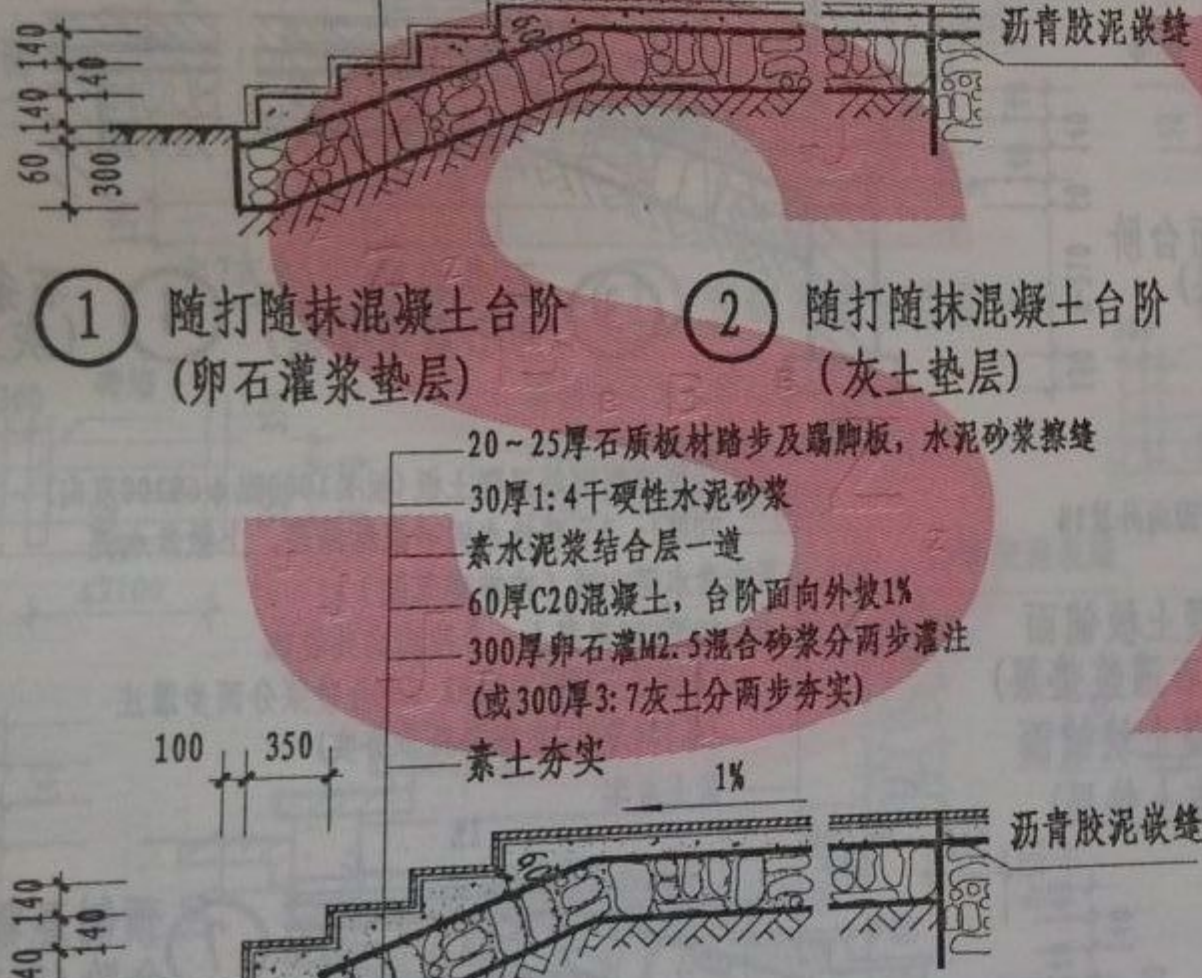
③ 灰土垫层 ④ 卵石垫层

注：D为地面厚度

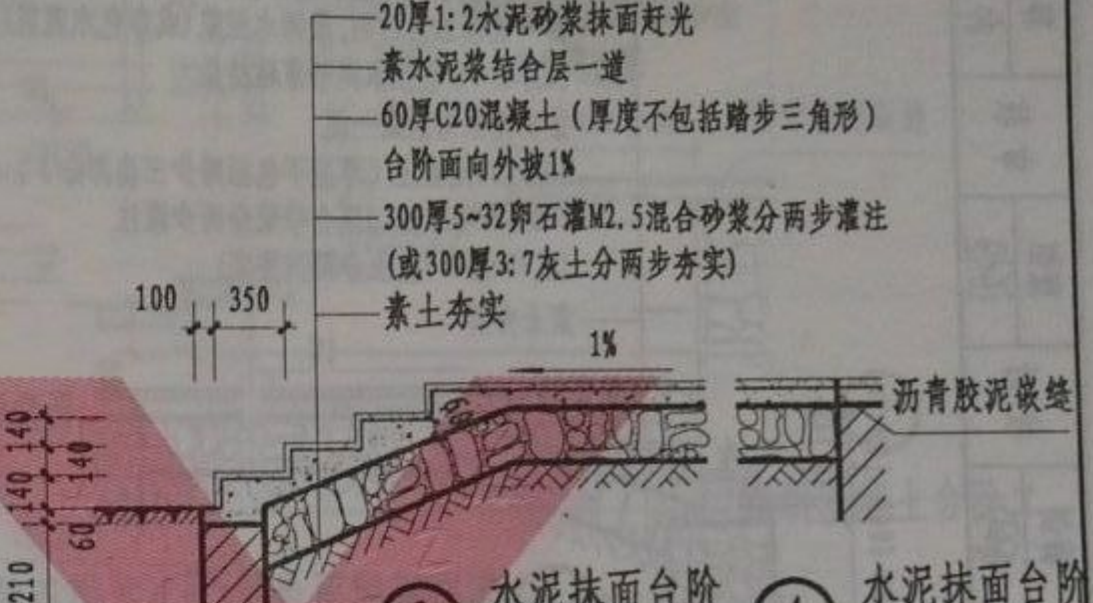
擦泥算子 一步台阶	图集号	12J9-1
	页次	101



① 随打随抹混凝土台阶
(卵石灌浆垫层)



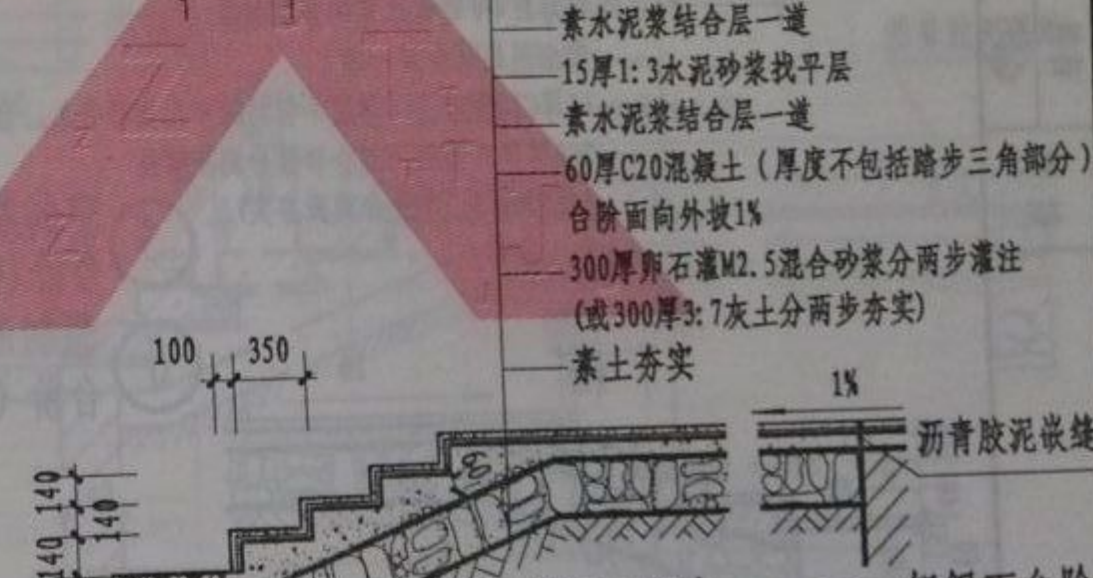
⑤ 石质板材铺面台阶
(卵石灌浆垫层)



② 随打随抹混凝土台阶
(灰土垫层)

③ 水泥抹面台阶
(卵石灌浆垫层)

④ 水泥抹面台阶
(灰土垫层)



⑥ 石质板材铺面台阶
(灰土垫层)

⑦ 斩假石台阶
(卵石灌浆垫层)

⑧ 斩假石台阶
(灰土垫层)

注：1. 严寒地区选用设基础的台阶；

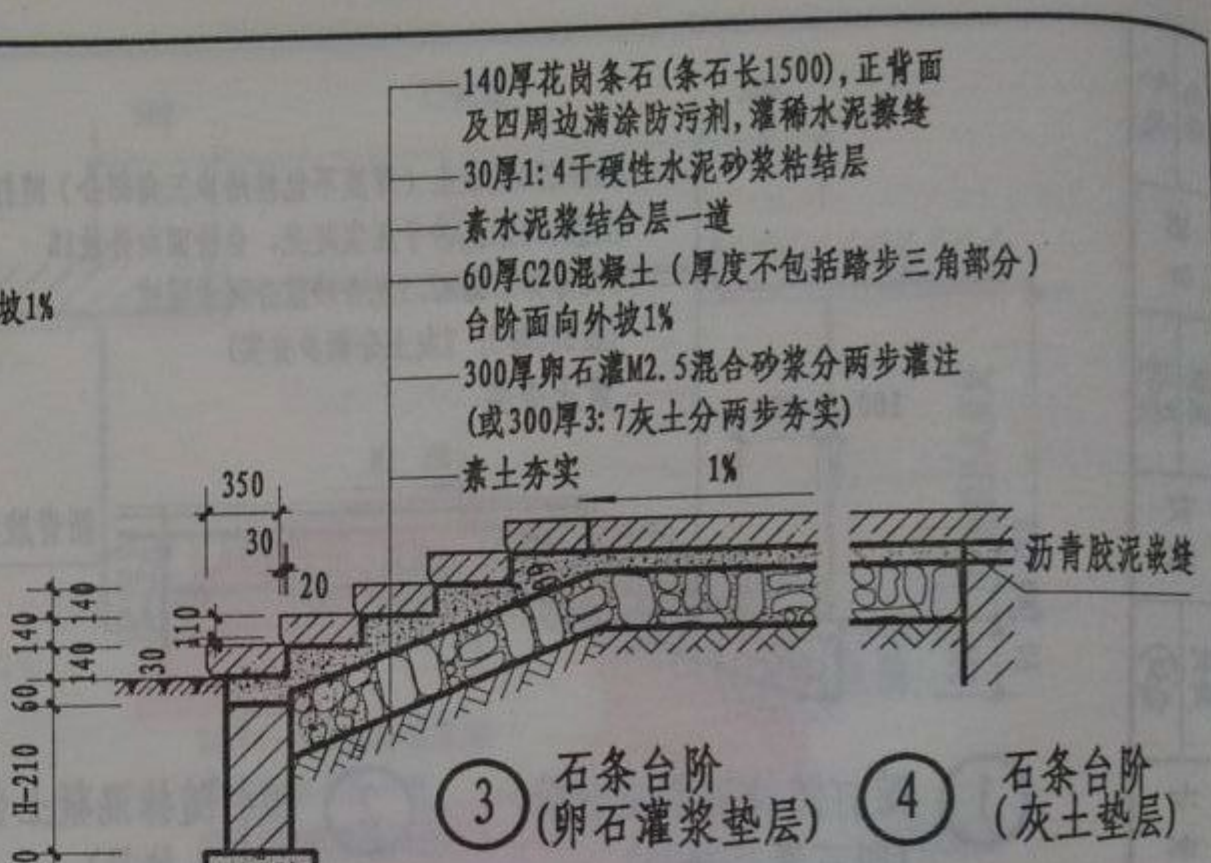
2. 台阶下如设防冻胀层，做法：300厚中粗砂。

多步台阶（一）	图集号	12J9-1
	页次	102



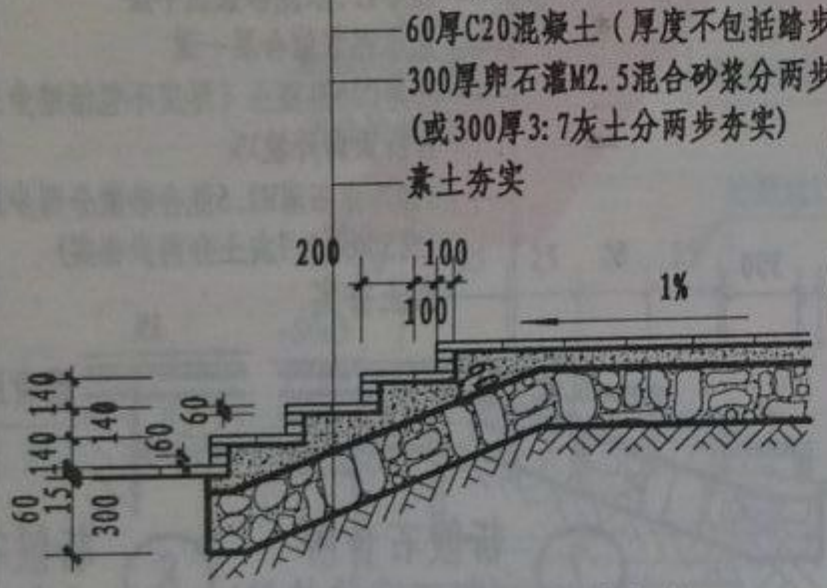
① 花岗石铺面台阶(卵石灌浆垫层)

② 花岗石铺面台阶(灰土垫层)



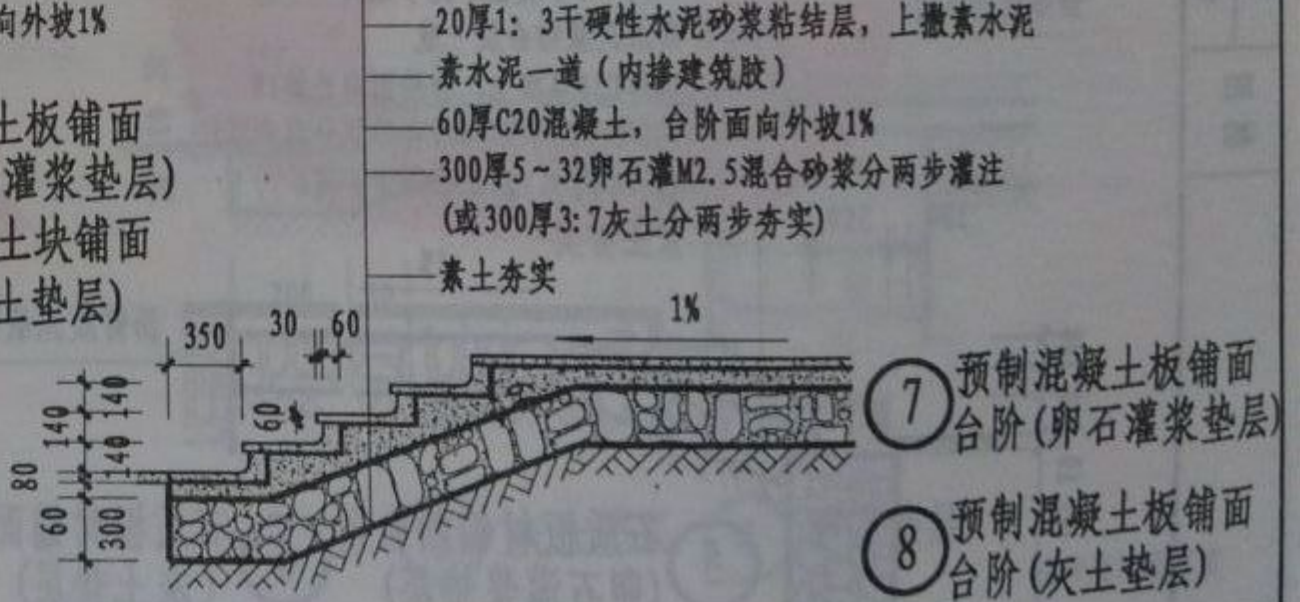
③ 石条台阶(卵石灌浆垫层)

④ 石条台阶(灰土垫层)



⑤ 预制混凝土板铺面台阶(卵石灌浆垫层)

⑥ 预制混凝土块铺面台阶(灰土垫层)



⑦ 预制混凝土板铺面台阶(卵石灌浆垫层)

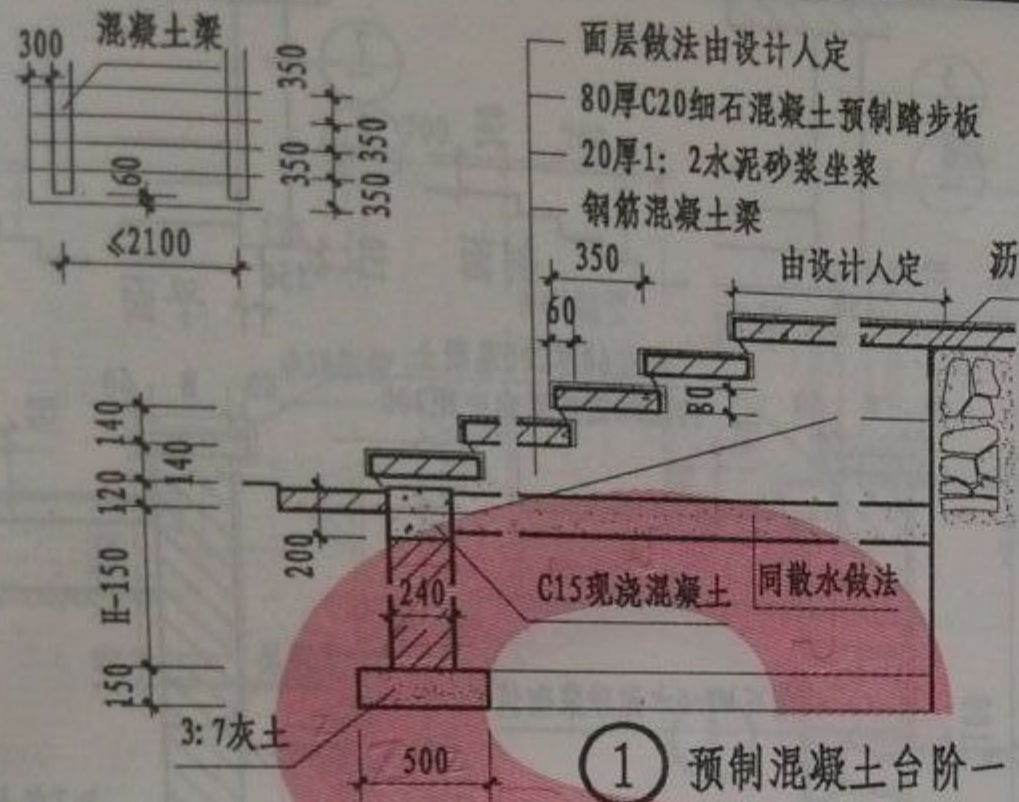
⑧ 预制混凝土板铺面台阶(灰土垫层)

注: 1. 台阶下如设防冻胀层,做法: 300厚中粗砂;

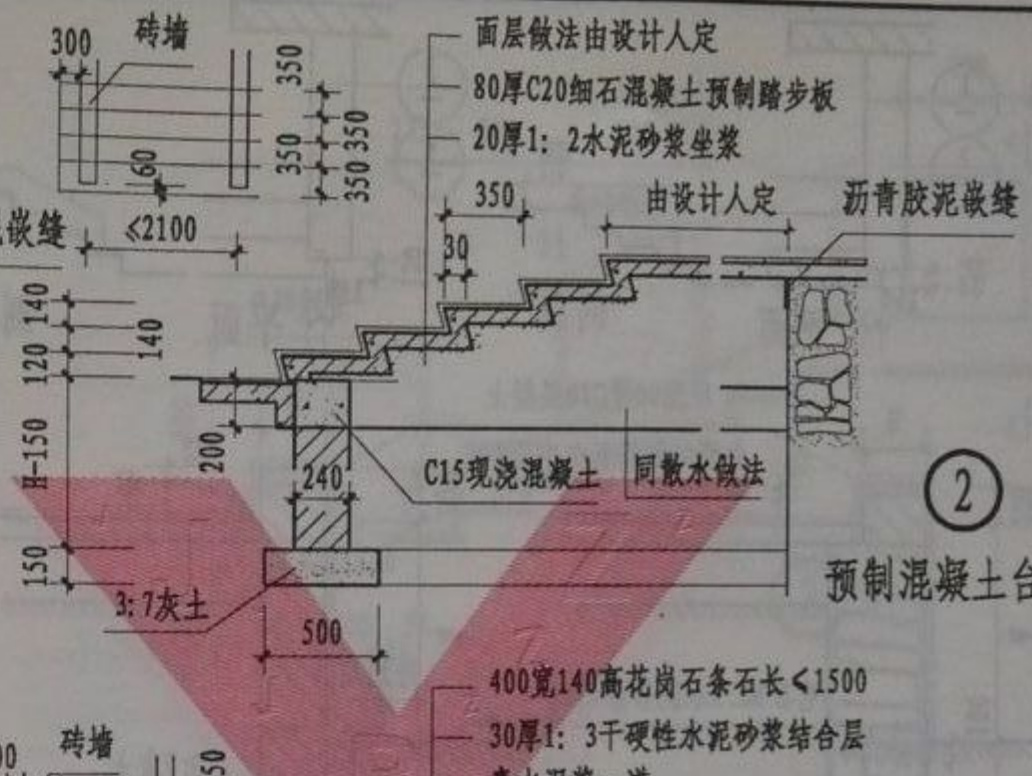
2. 石材间缝宽10,干石灰砂扫缝后撒水封缝. 图中所注尺寸为标准尺寸,实际尺寸需在施工放样时另定;

3. 严寒地区选用设基础的台阶.

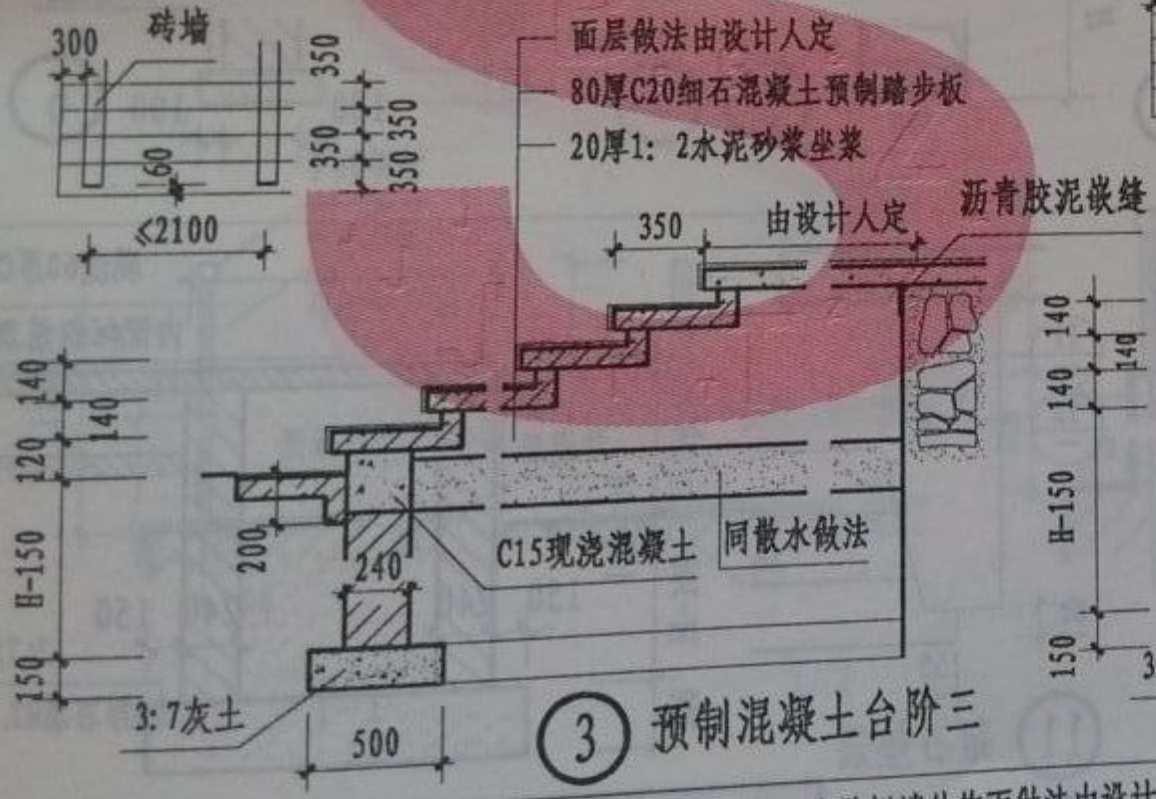
多步台阶(二)	图集号	12J9-1
	页次	103



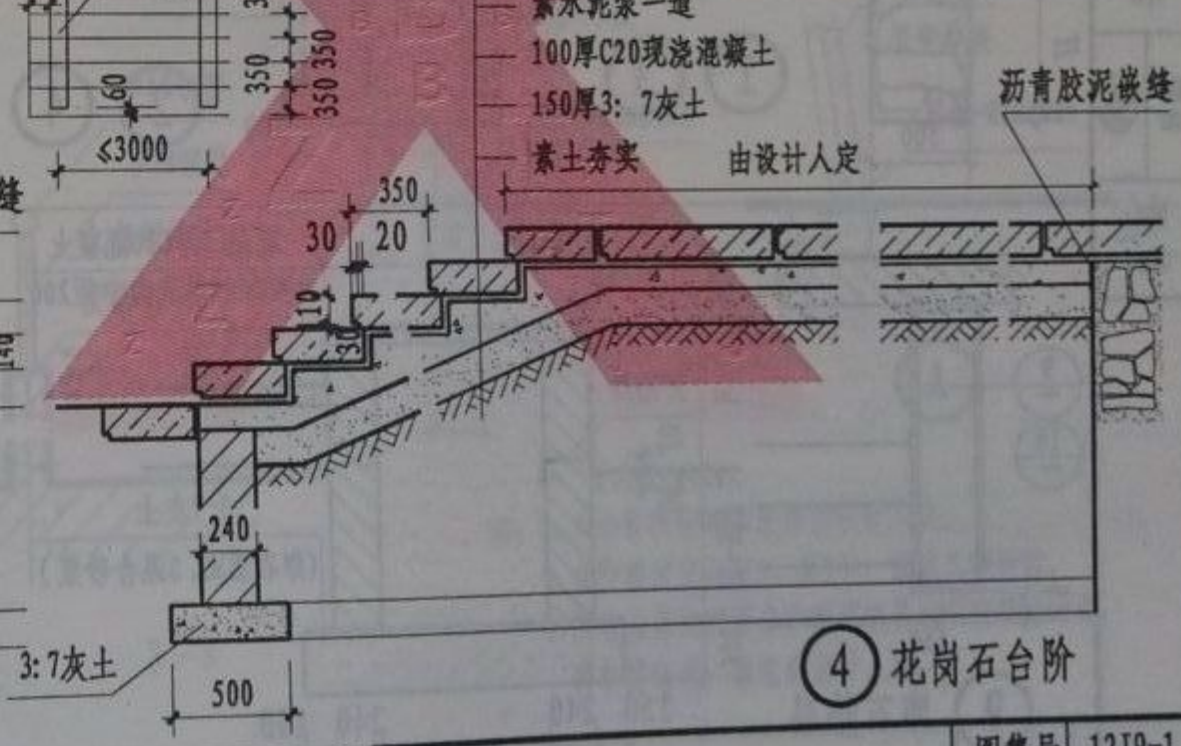
① 预制混凝土台阶一



② 预制混凝土台阶二



③ 预制混凝土台阶三

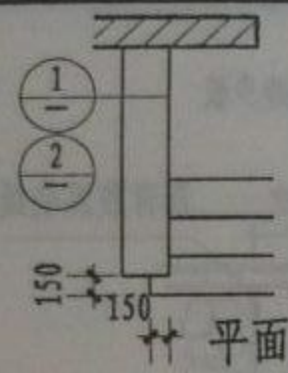


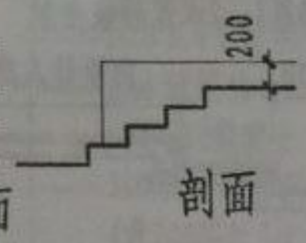
④ 花岗石台阶

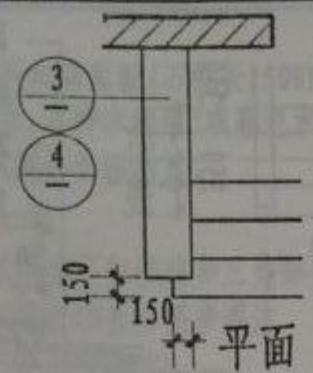
注：1.80厚预制混凝土板内配φ6钢筋双向中距200； 2.台阶侧端外饰面做法由设计人定；
3.花岗石台阶下铺300厚中砂防冻胀层，须在工程设计中说明。

大台阶

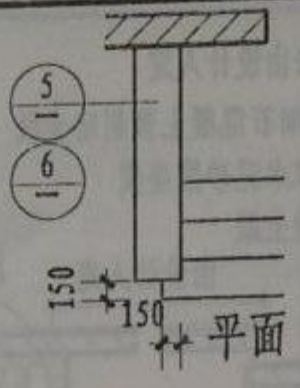
图集号	12J9-1
页次	104



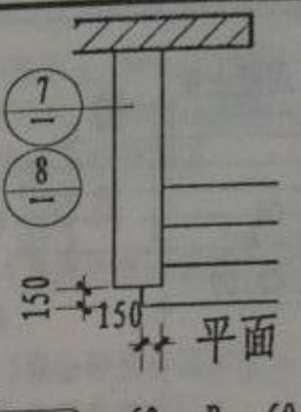




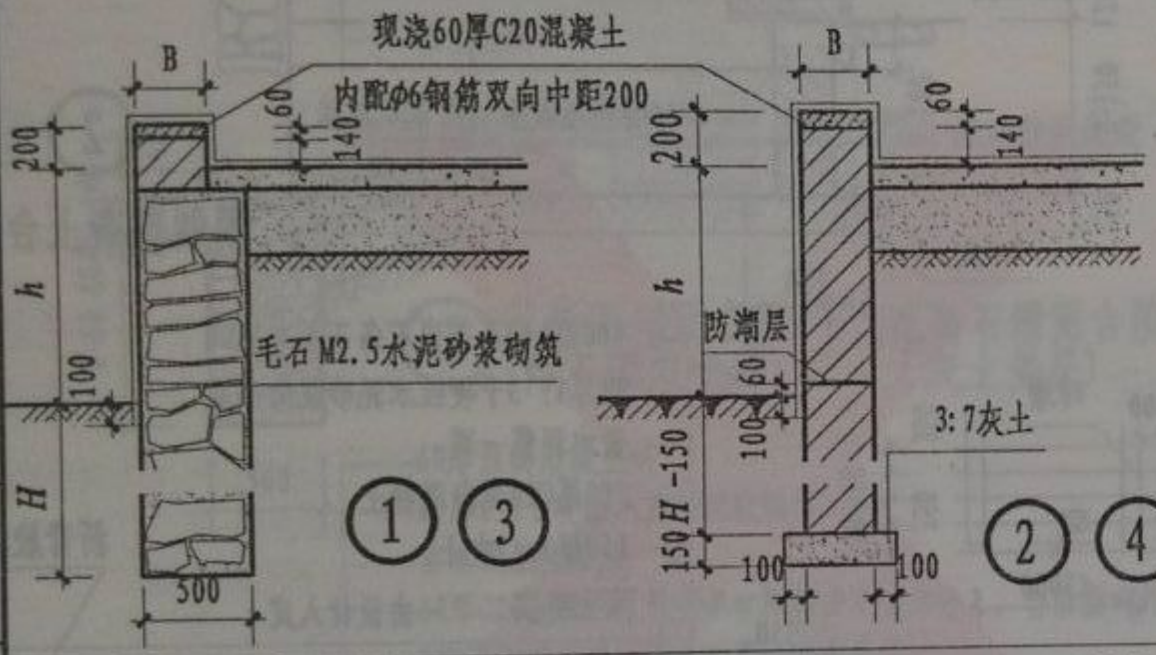


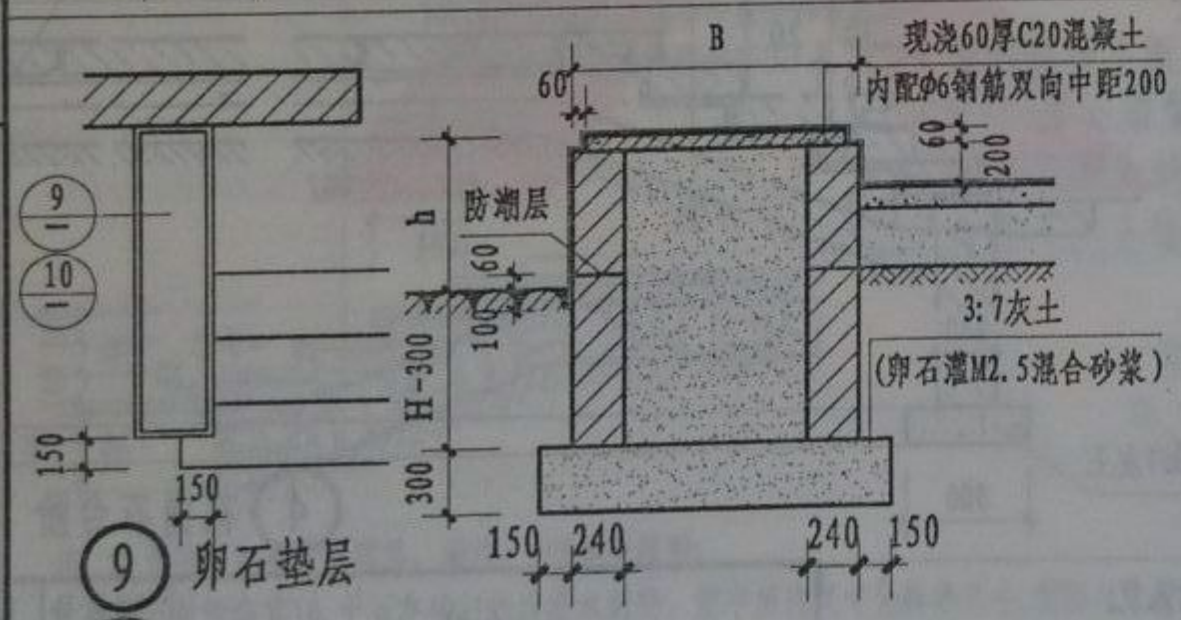






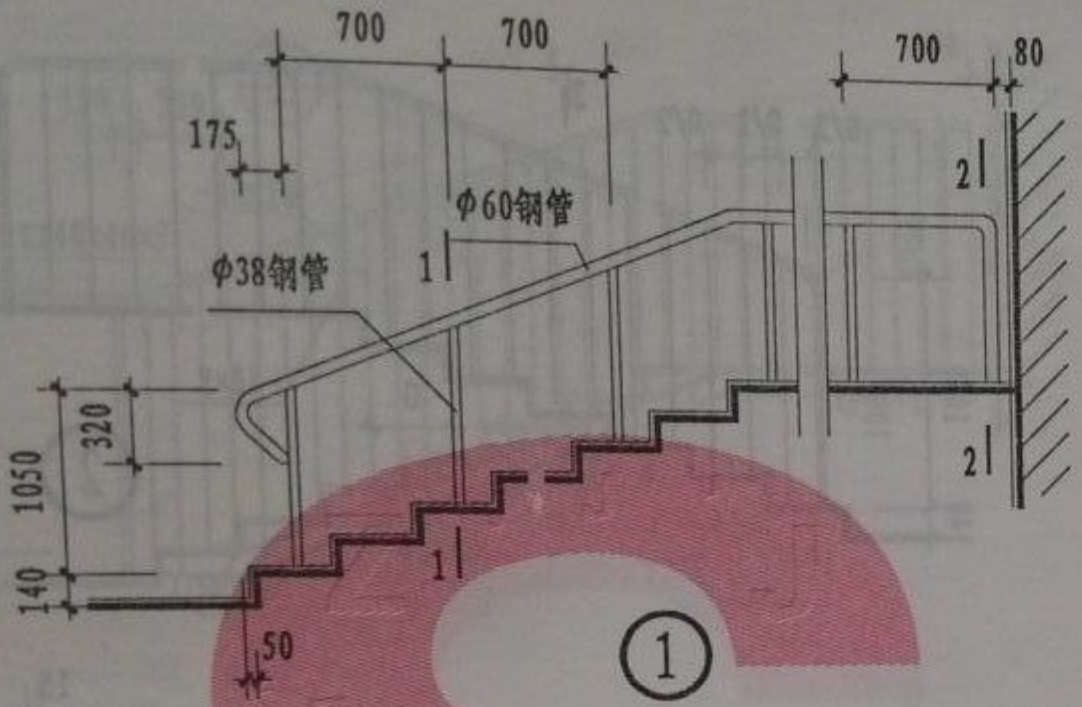






台阶挡墙

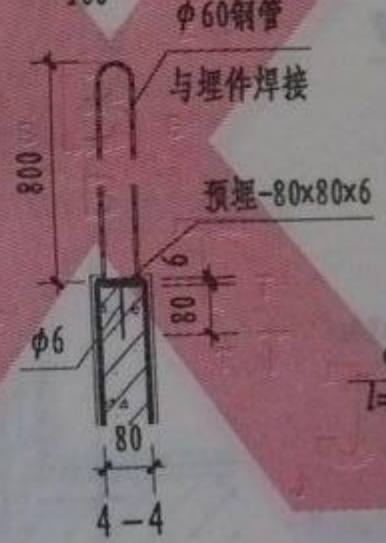
图集号	12J9-1
页次	105

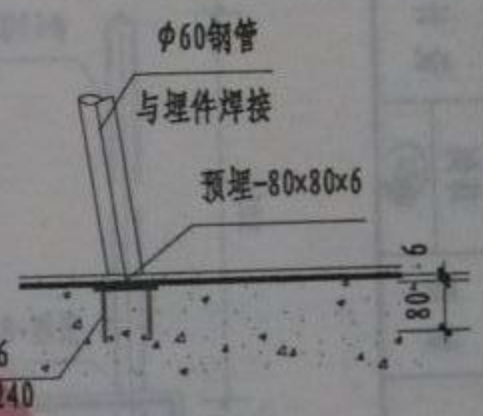


①

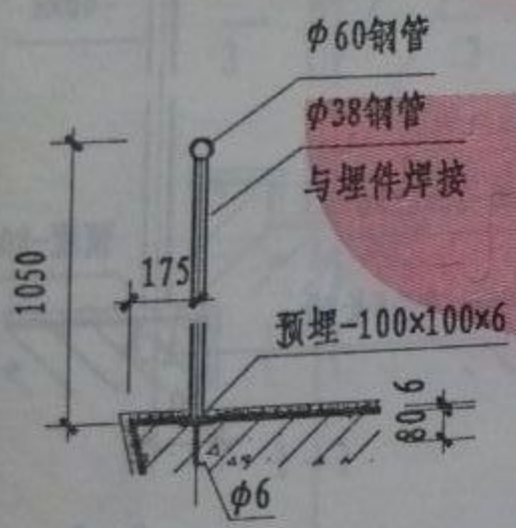


②

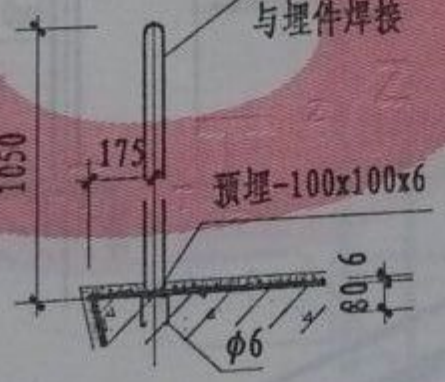




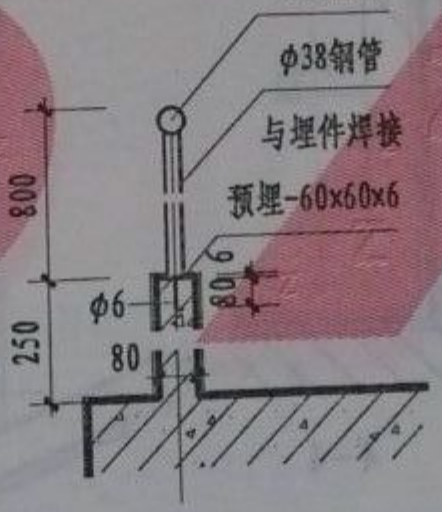
Ⓐ



1－1



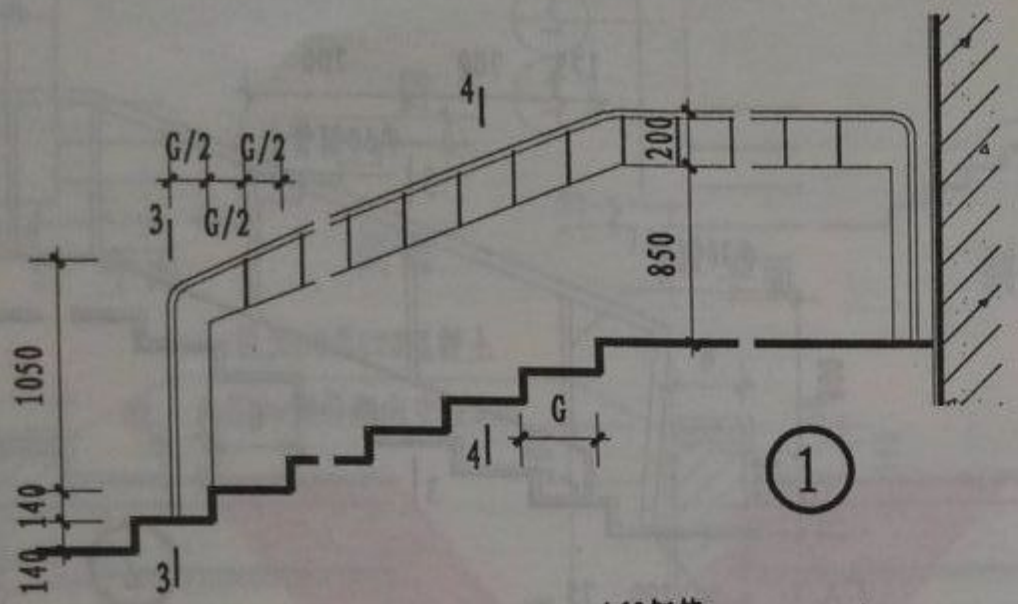
2－2

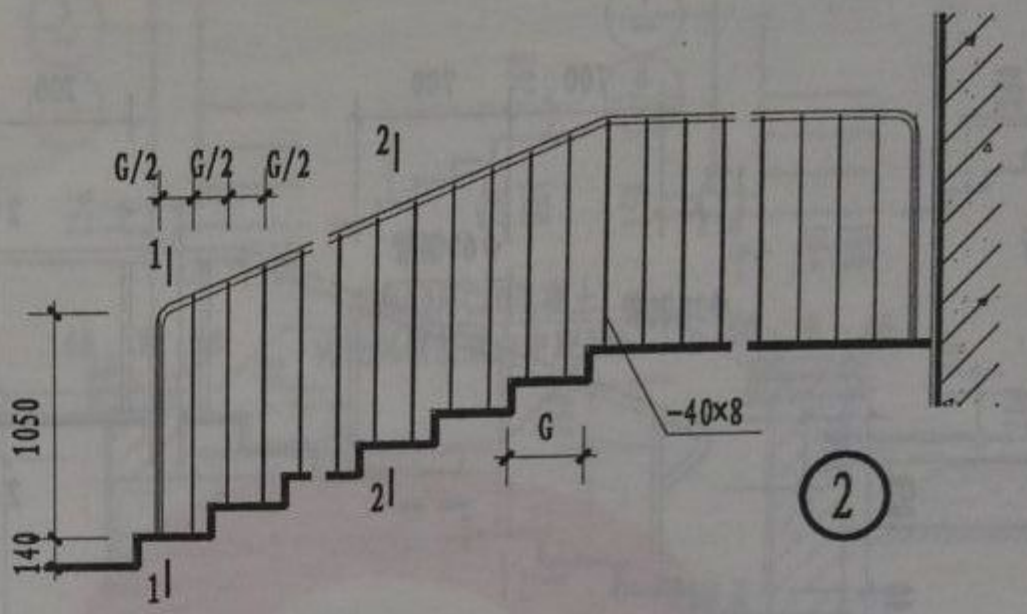


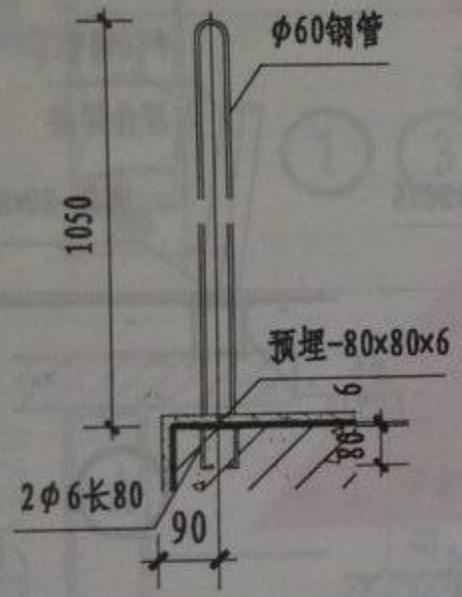
3－3

注：1. 大台阶栏板饰面材料由设计人定.
2. 台阶踏步宽G=350、高140，或按工程设计.
3. 所有金属栏杆部分和露明铁件均刷防锈漆一道，调和漆两道，颜色由设计人定.

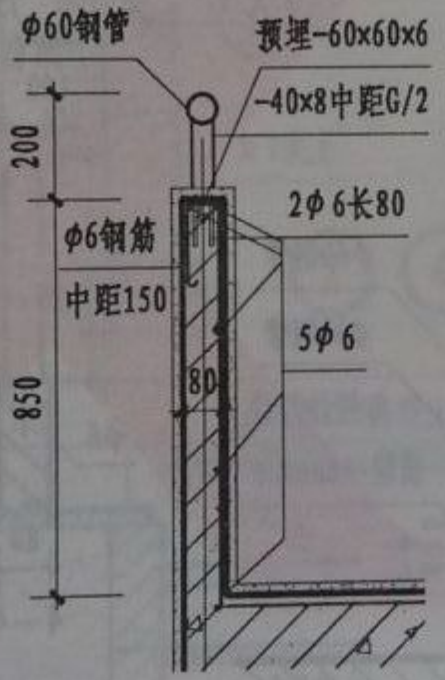
大台阶栏杆（一）	图集号	12J9-1
	页次	106



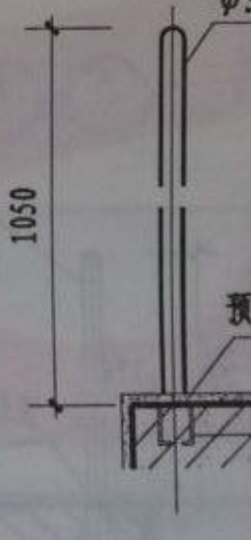




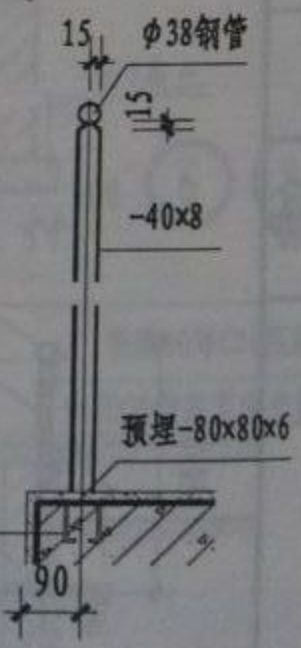
3－3



4－4



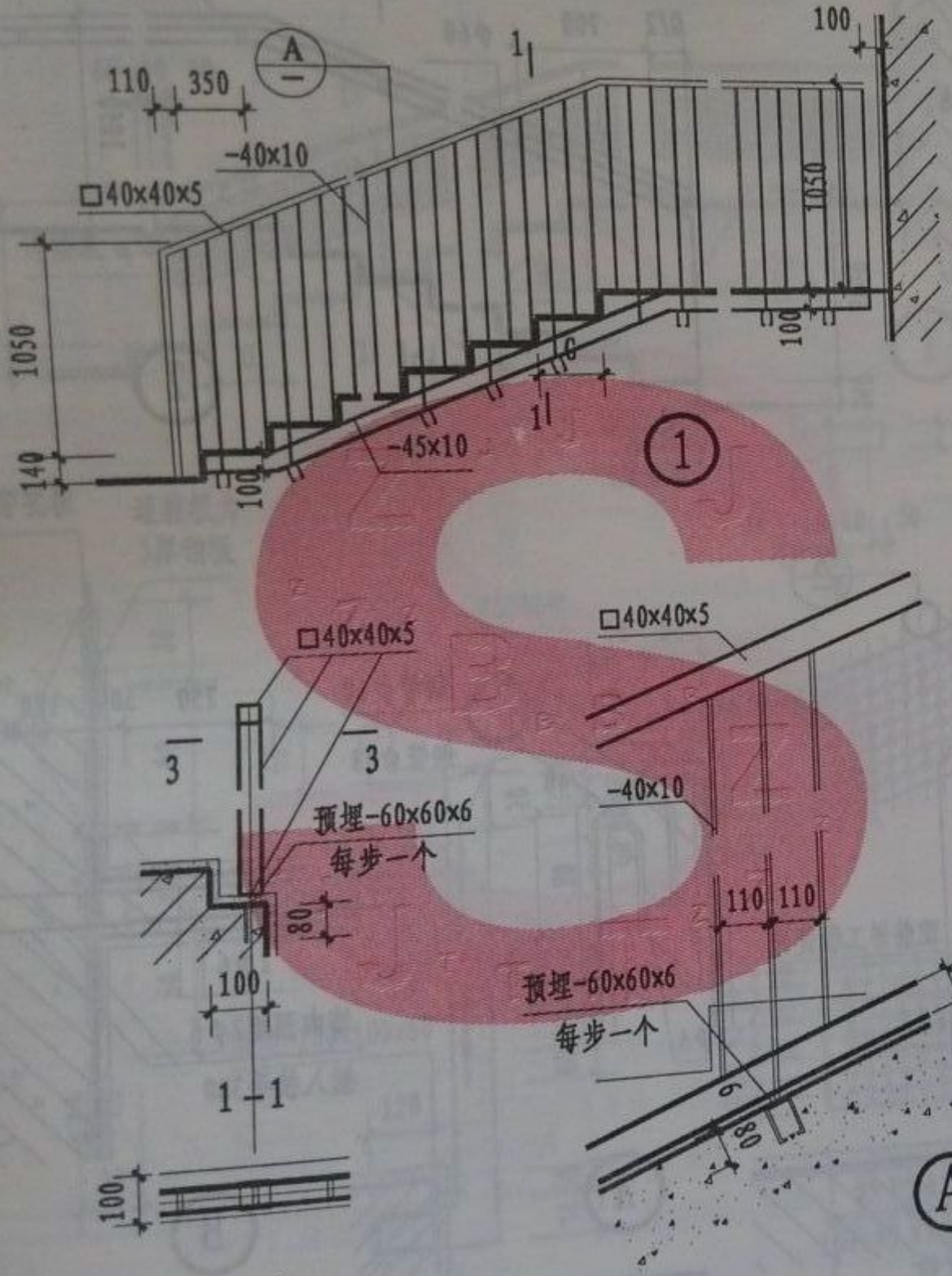
1－1

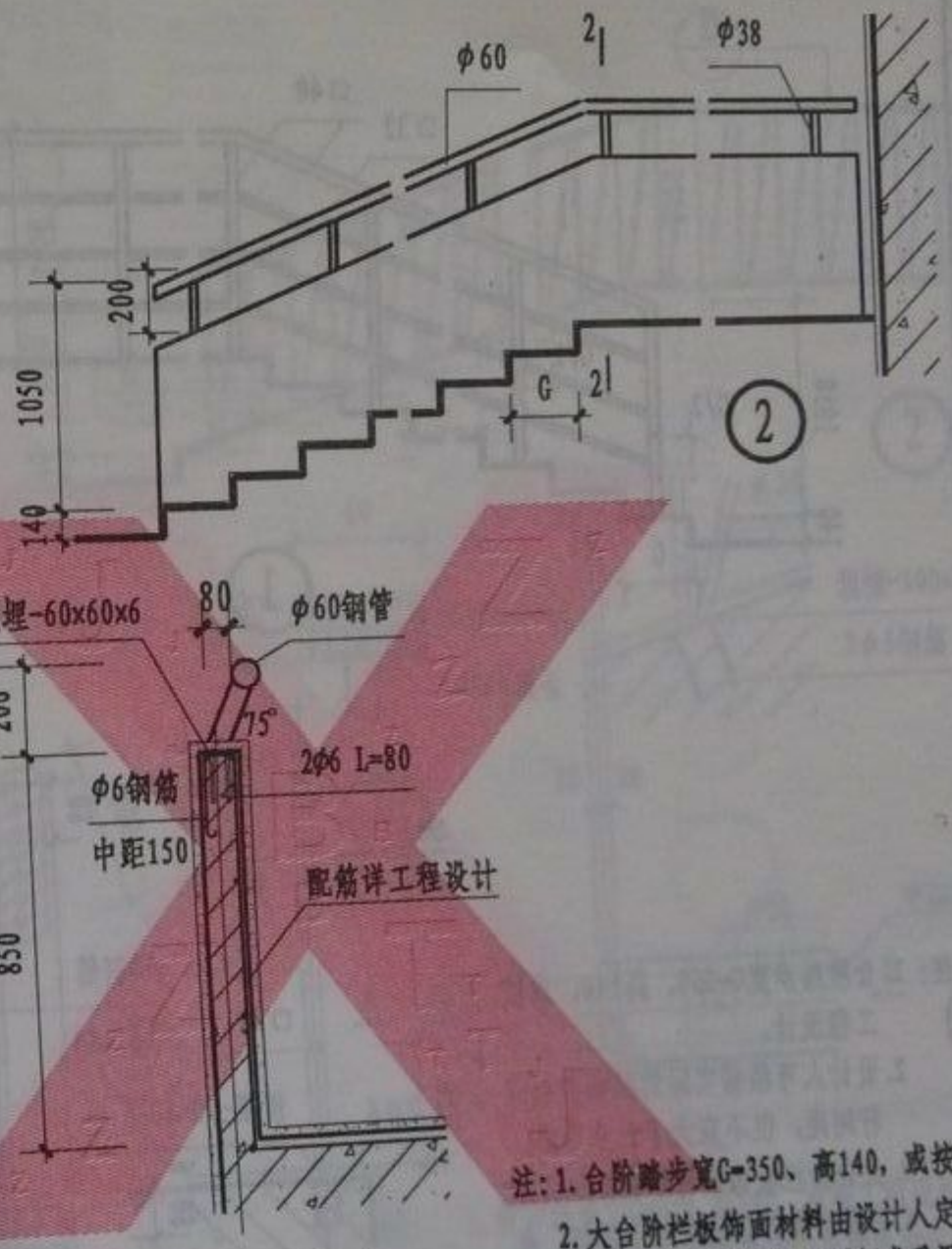


2－2

注：1. 台阶踏步宽G=350、高140，或按工程设计。
2. 大台阶栏板饰面材料由设计人定。
3. 外露金属部分采用不锈钢或采用普通钢，表面处理做法由设计人定。

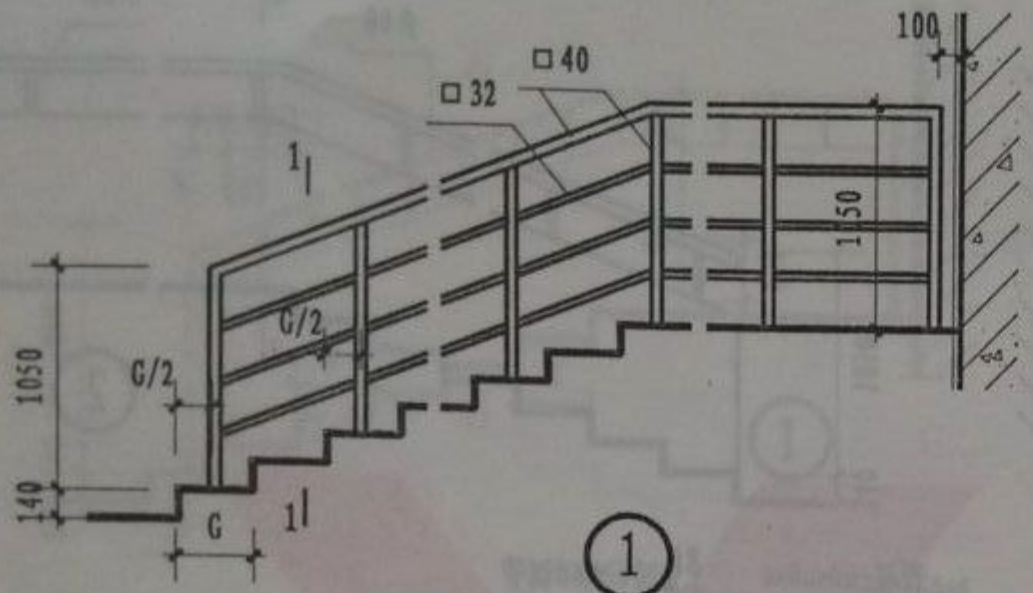
大台阶栏杆（二）	图集号	12J9-1
	页次	107



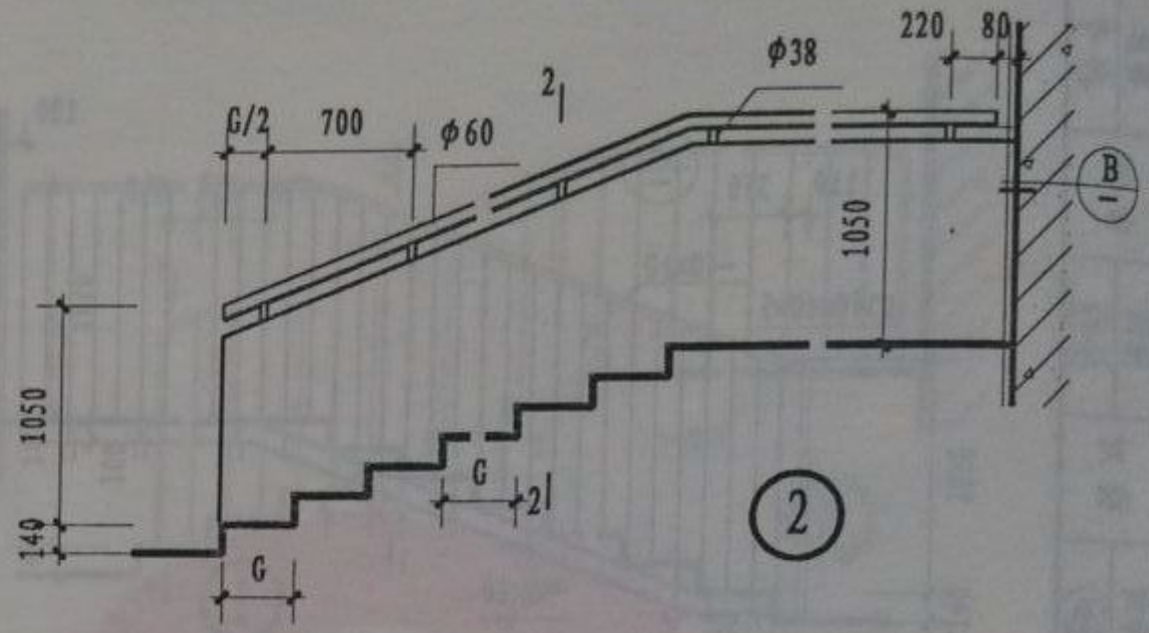


注：1. 台阶踏步宽G=350、高140，或按工程设计。
2. 大台阶栏板饰面材料由设计人定。
3. 外露金属部分采用不锈钢或采用普通钢，表面处理做法由设计人定。
4. 铁件焊缝须锉平磨光。

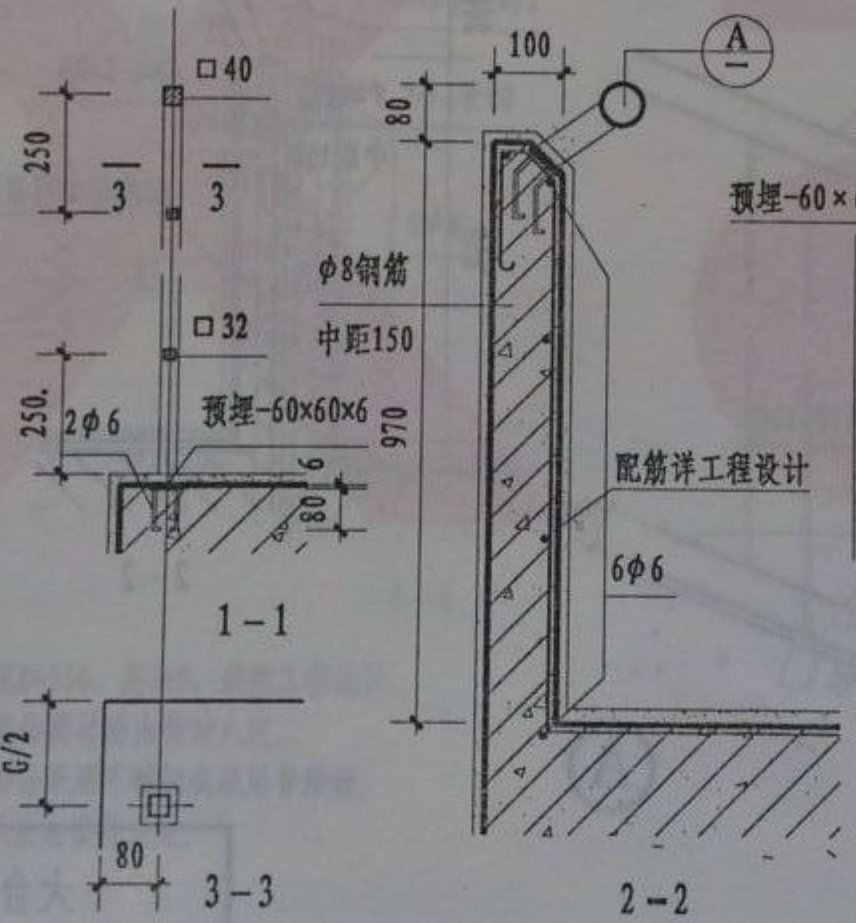
大台阶栏杆（三）	图集号	12J9-1
	页次	108



①

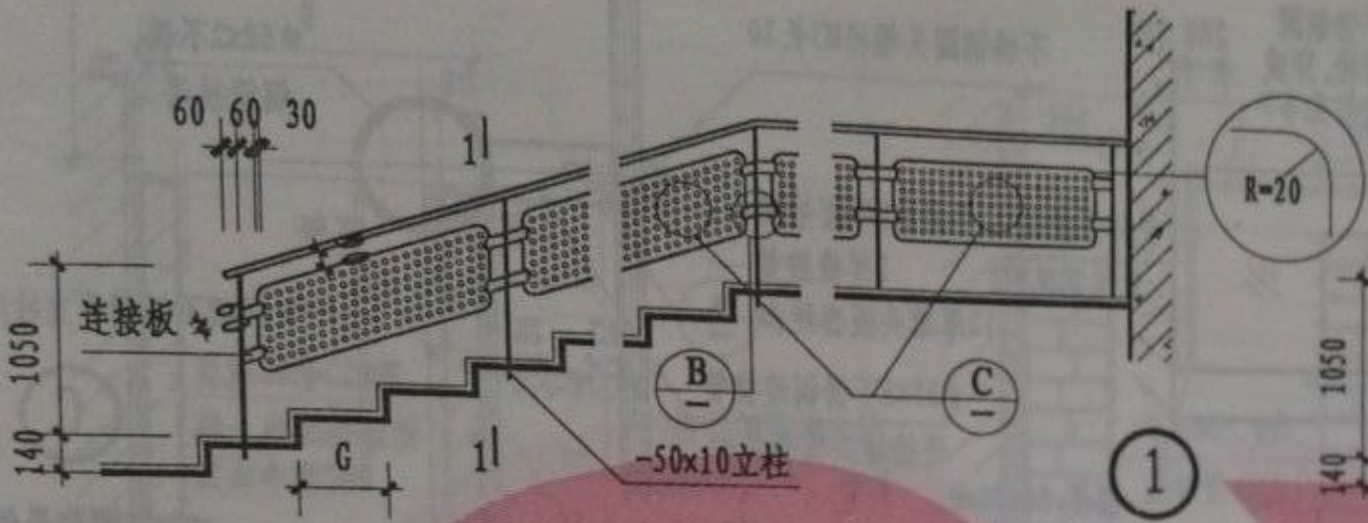


②

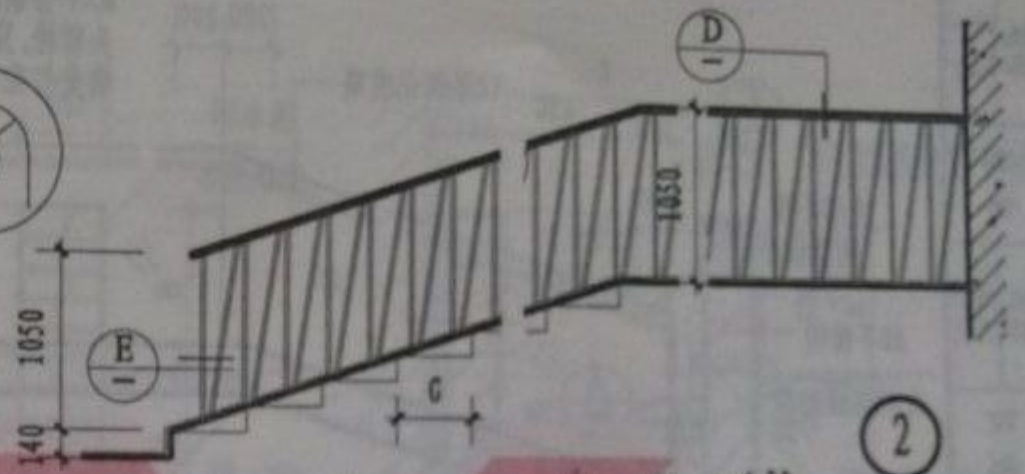


注：1. 台阶踏步宽G=350、高140，或按工程设计.
2. 设计人可根据实际情况调整钢立杆间距，但不应大于三步台阶.
3. 大台阶栏板饰面材料由设计人定.
4. 外露金属部分均采用不锈钢，也可以由设计人定.
5. ①的栏杆用在台阶中间.

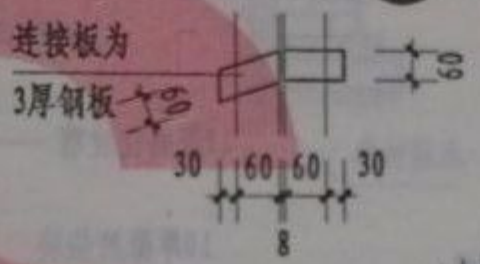
大台阶栏杆（四）	图集号	12J9-1
	页次	109

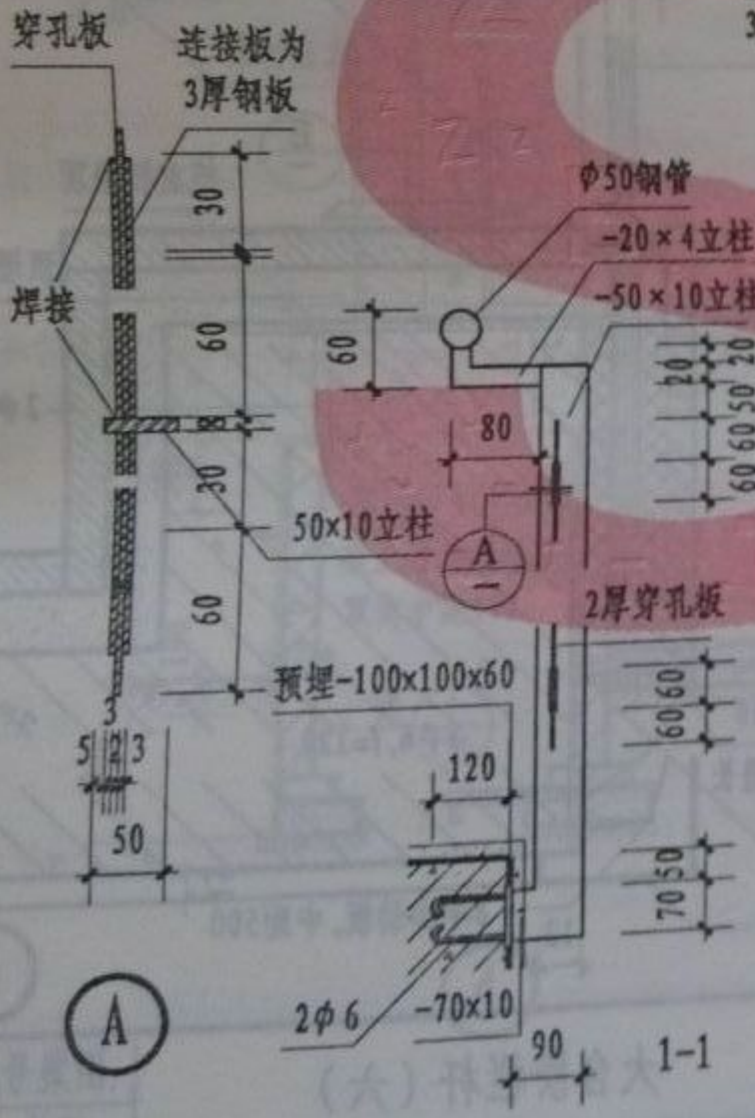


①

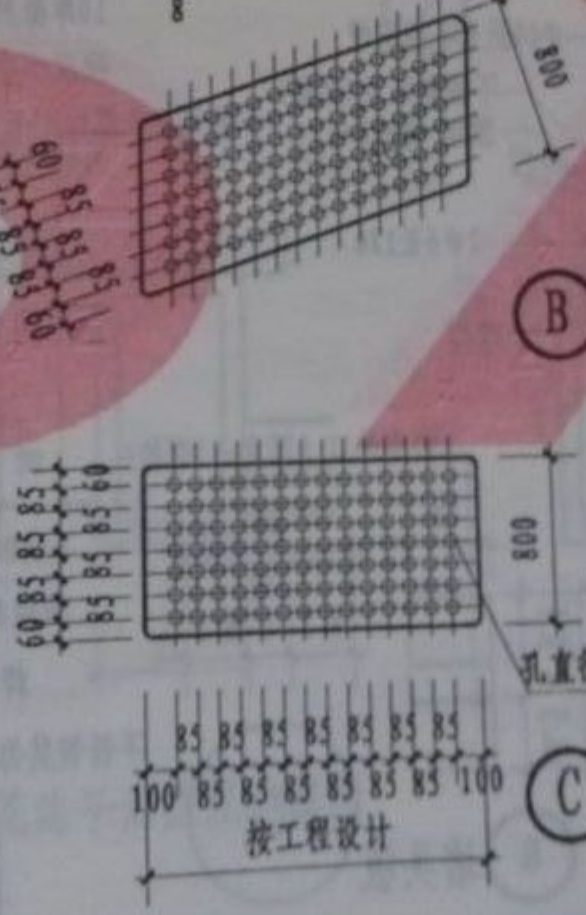


②

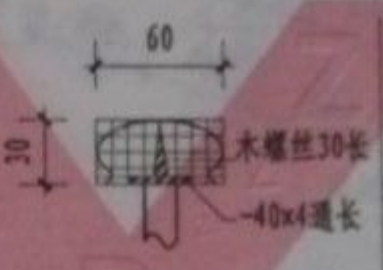




A



B C



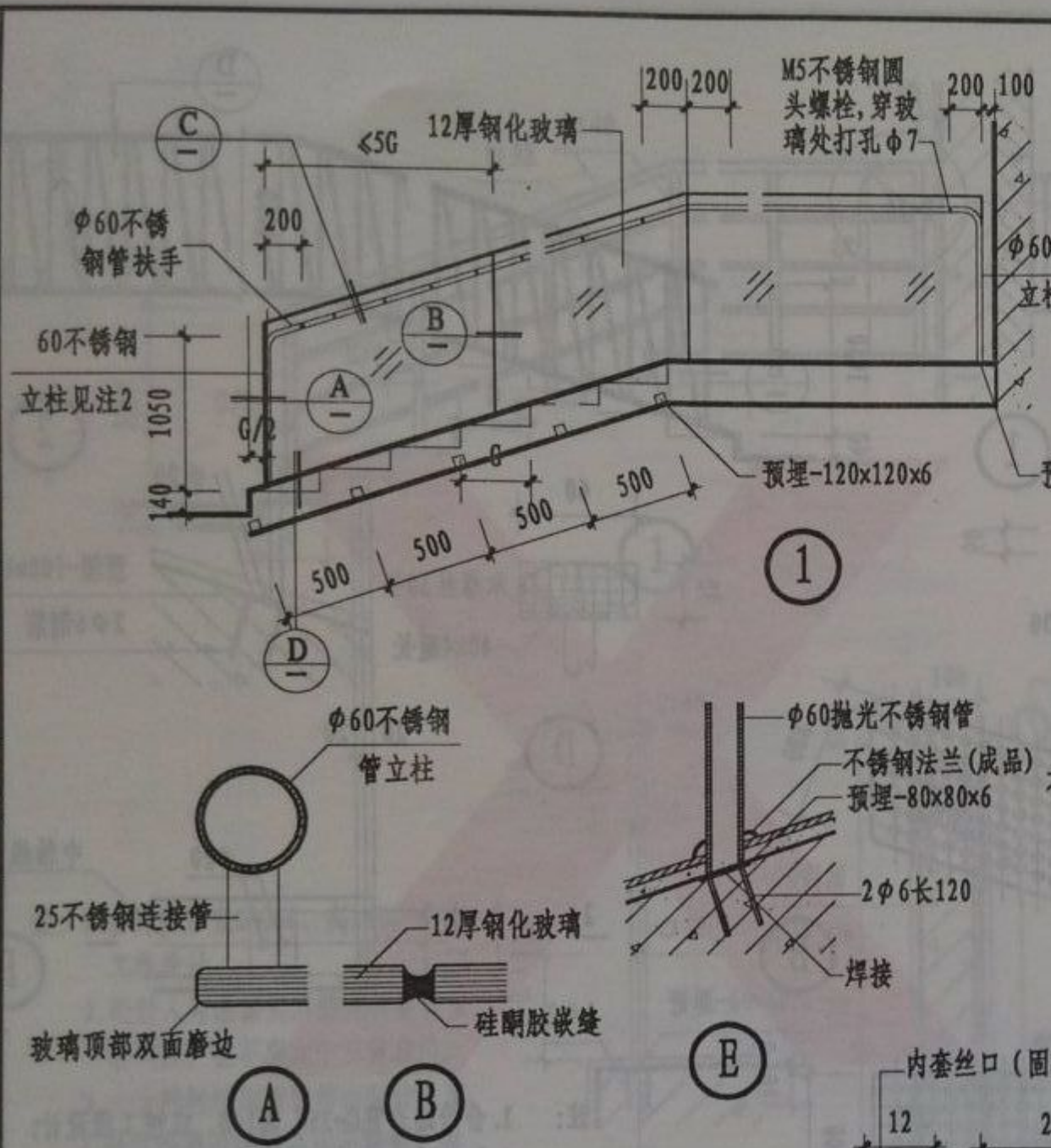
D

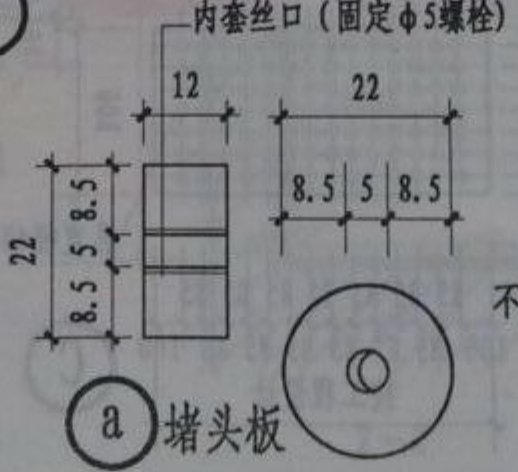


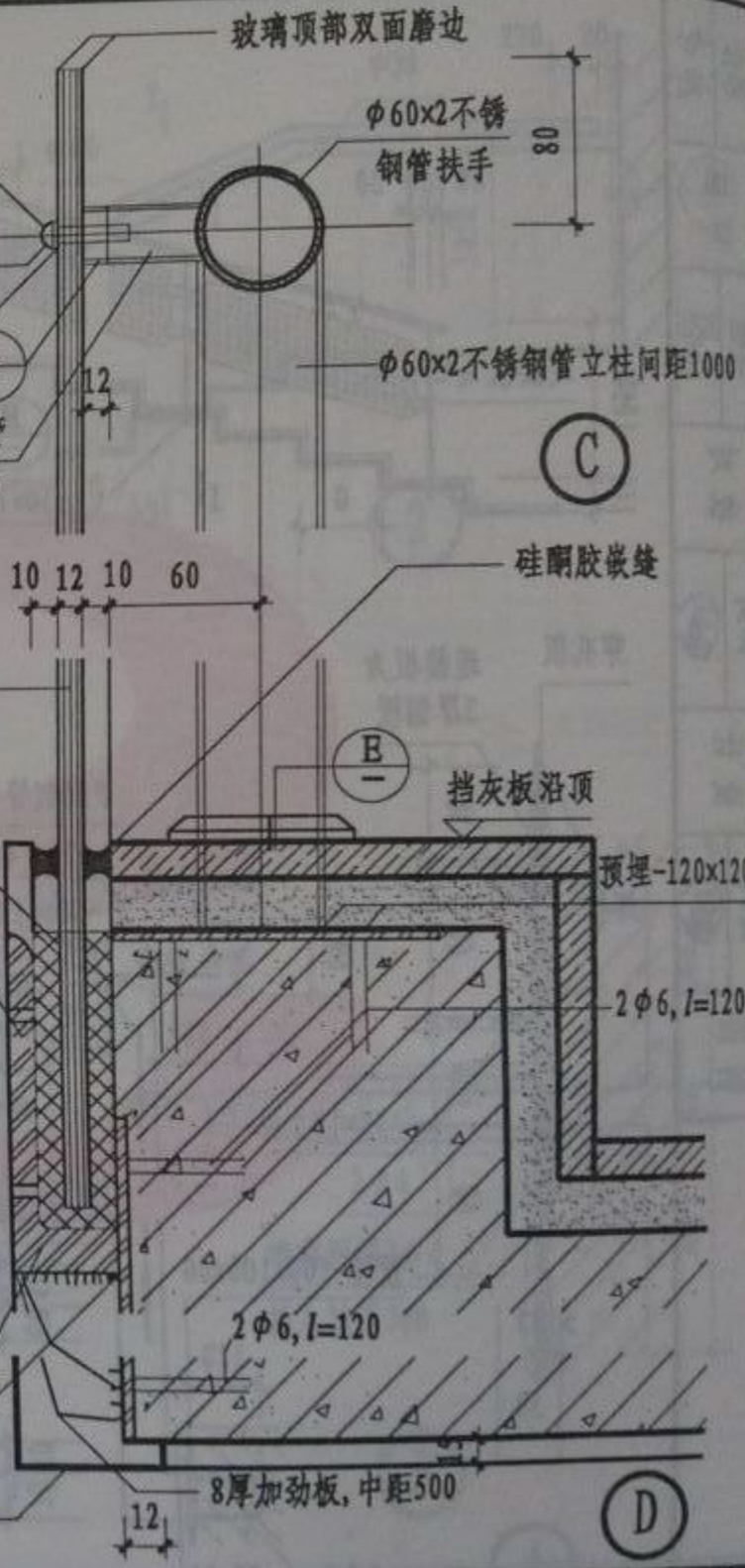
E

注：
1. 台阶踏步宽G=350，高140，或按工程设计；
2. 钢扶手及栏板表面装饰作法及颜色由设计人定；
3. 铁件焊缝须磨平磨光；
4. 木扶手做防腐处理。

大台阶栏杆（五）	图集号	12J9-1
	页次	110



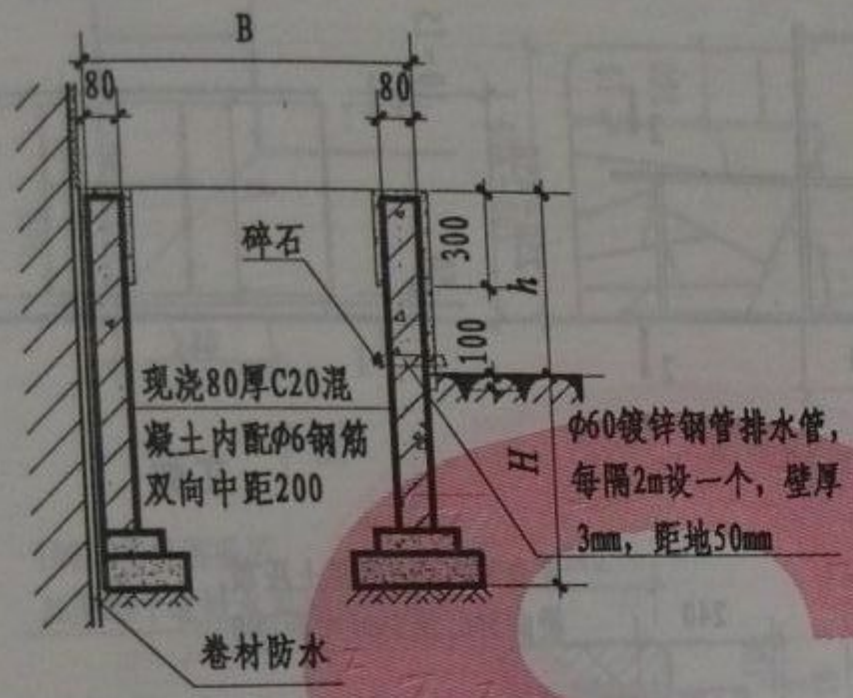




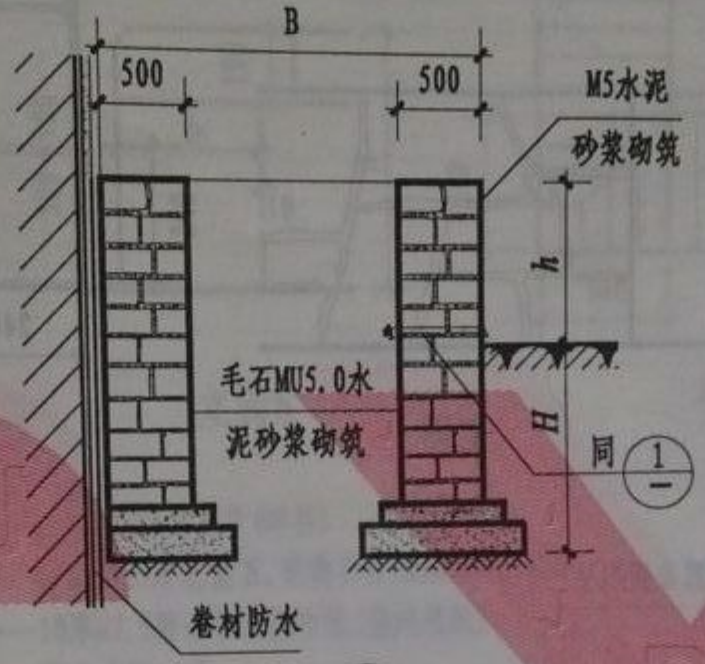
注: 1. 台阶踏步宽G=350, 高140, 或按工程设计;
2. 60不锈钢立柱仅设于台阶栏杆开始处, 转弯处, 结束处;
3. 不锈钢螺栓穿玻璃处的打孔应在玻璃钢化处理前进行;
4. 固定钢化玻璃底部用的橡胶块必须满填, 塞实, 填牢, 其高度不得小于140.

大台阶栏杆(六)

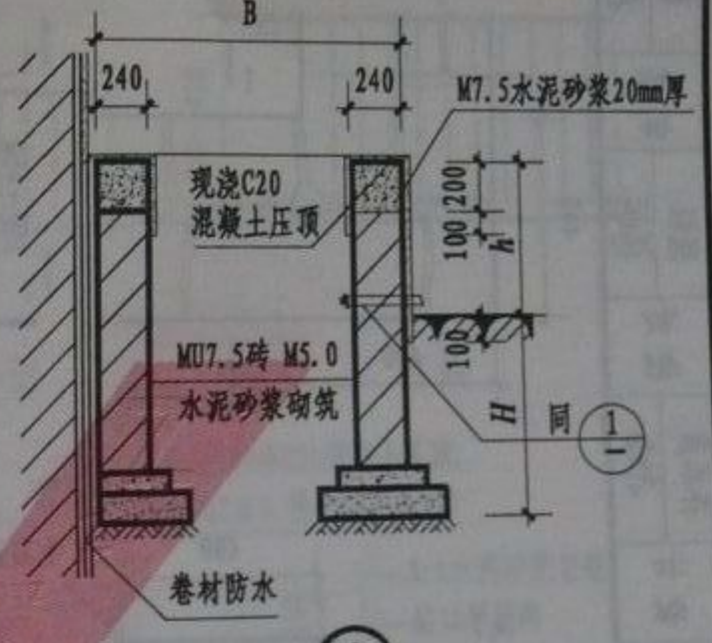
图集号	12J9-1
页次	111



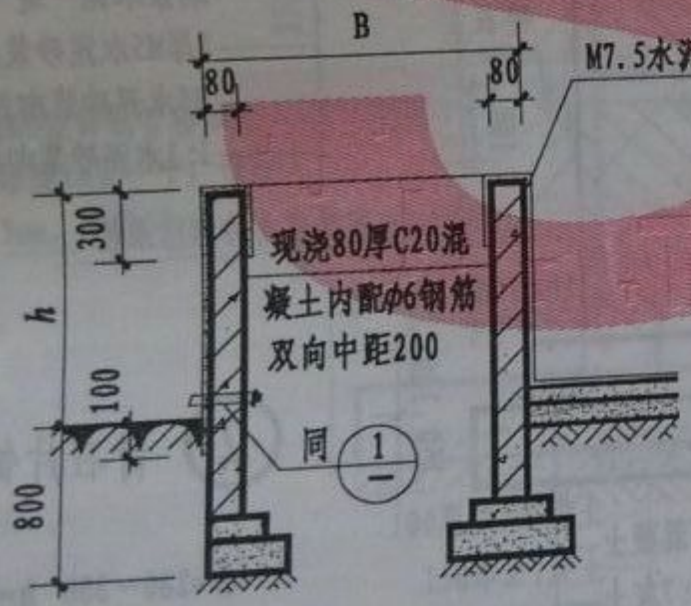
①

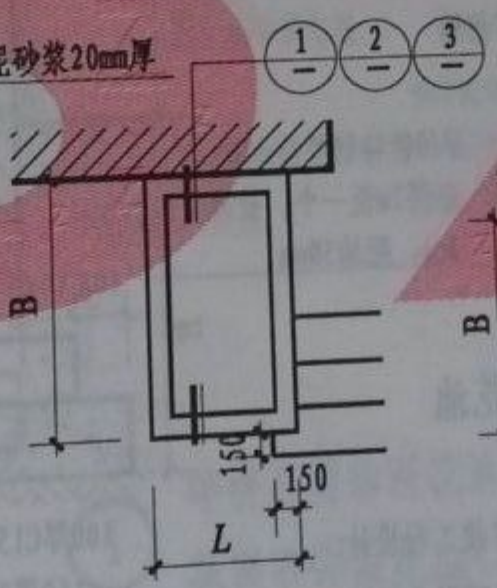


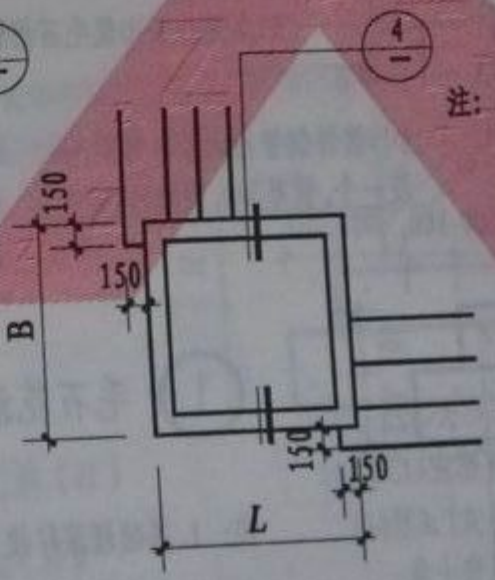
②



③







④

花池平面位置示意图

注：1. 花池长度 L，宽度 B，高度 h，基础埋深 H 及饰面材料均由设计人定；

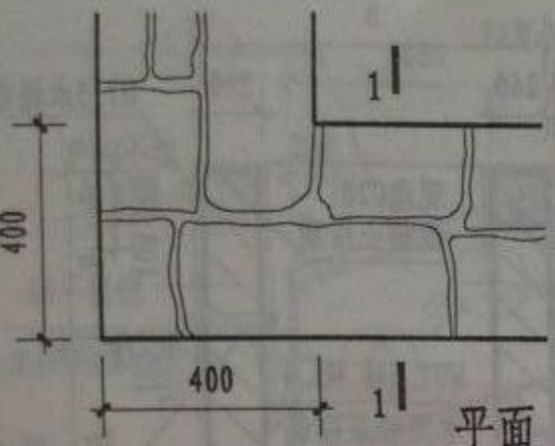
2. 花池饰面材料由设计人定；

3. 花池紧靠建筑物外墙必须设防潮层，做法为外墙抹20厚M7.5水泥砂浆内掺5%防水粉，再附加3mm厚高聚物卷材一道至室外地下1200；

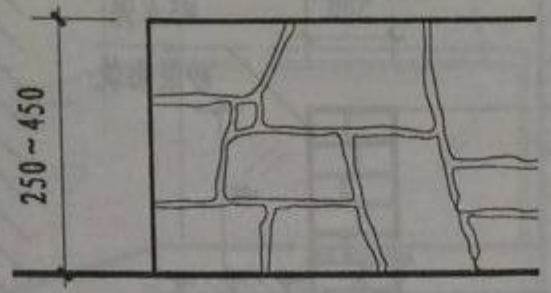
4. 毛石花池适用于长，宽尺寸>2000时使用。

花池（一）	图集号	12J9-1
	页次	112

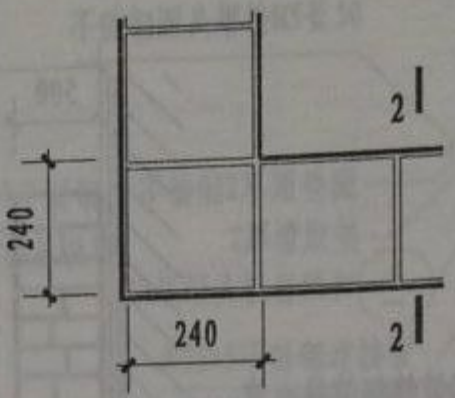
制图 设计 开单彦 孙炜 校对 张恒 审核 开单彦 孙炜



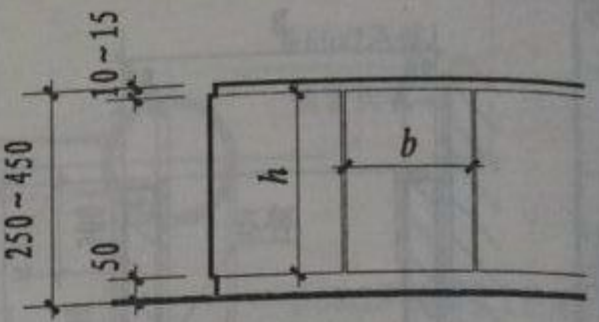
平面



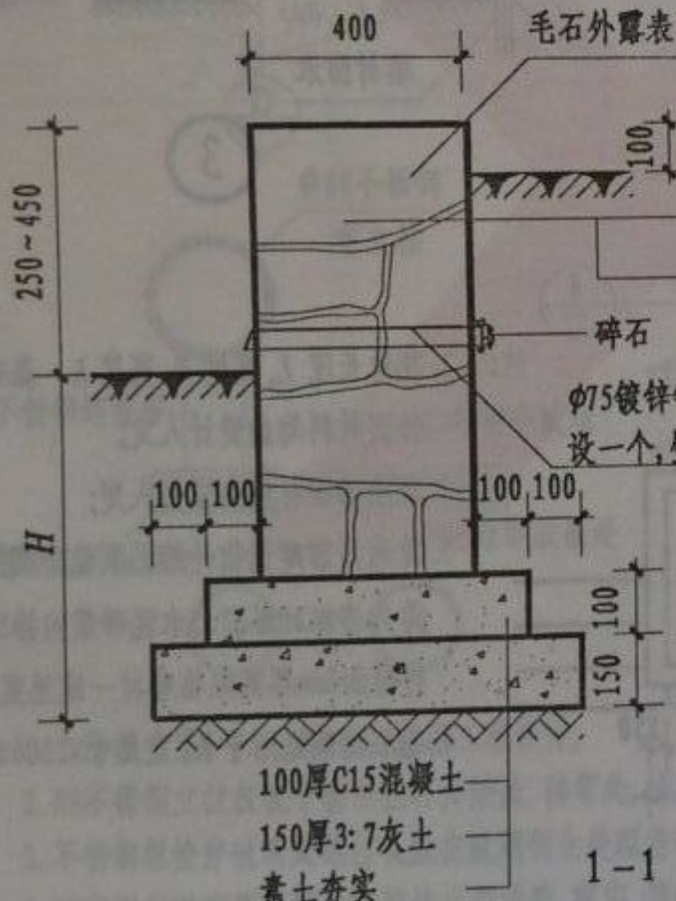
立面



平面



立面

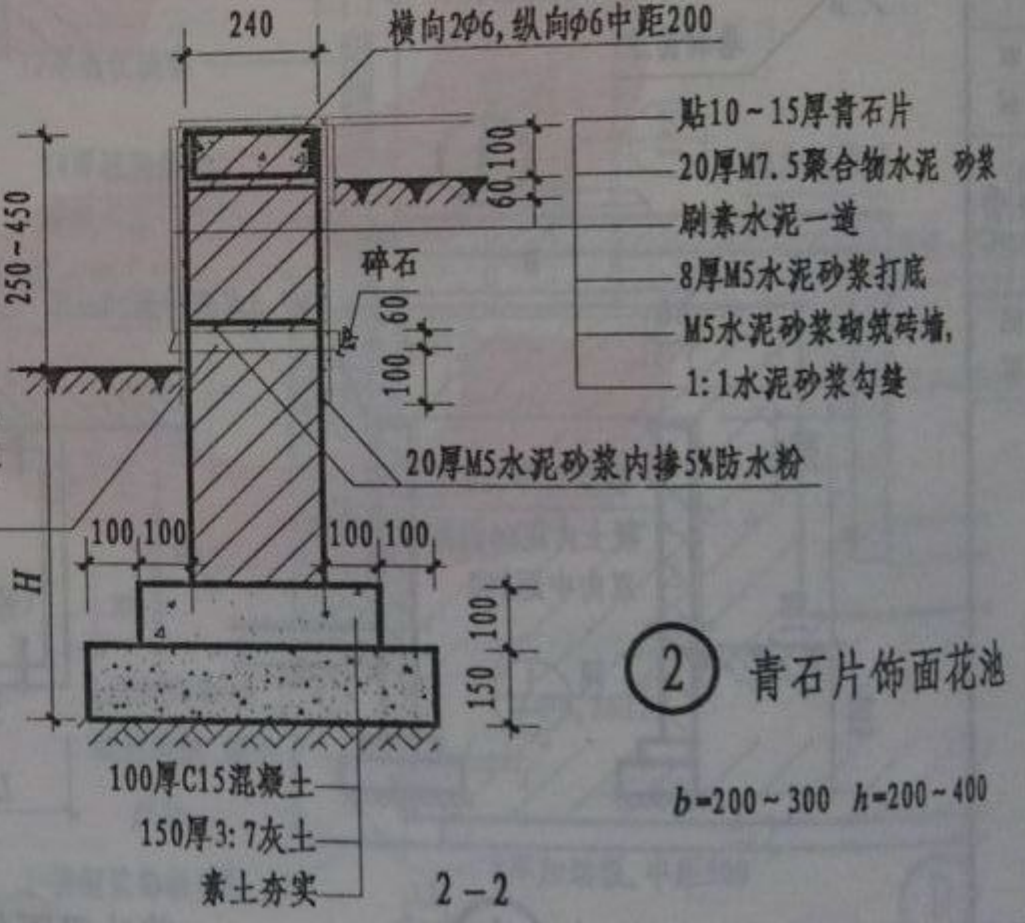


1—1

① 毛石花池

注：1. 基础埋深H按工程设计；

2. 灰土垫层也可以改用同厚度1:2:4碎石三合土垫层，由设计人定。



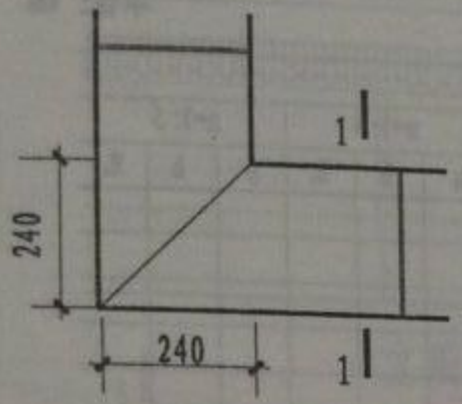
2—2

② 青石片饰面花池

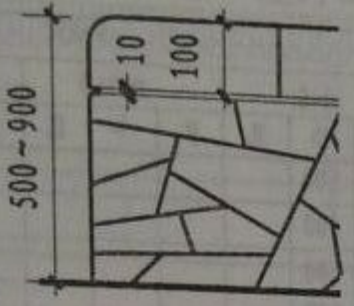
b=200~300 h=200~400

花池(二)

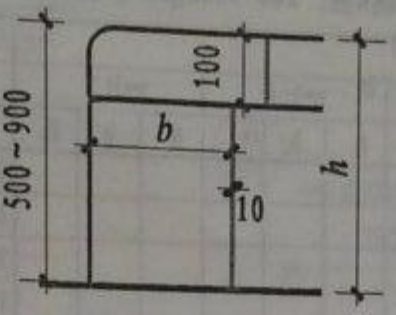
图集号	12J9-1
页次	113



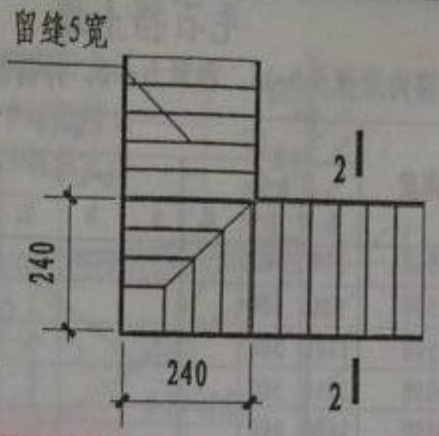
平面



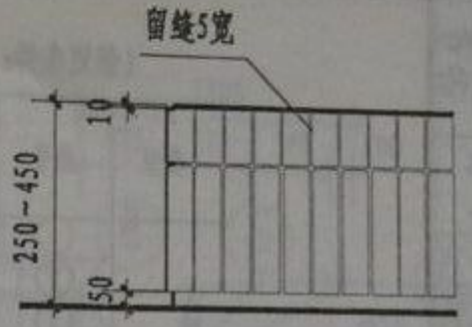
立面a



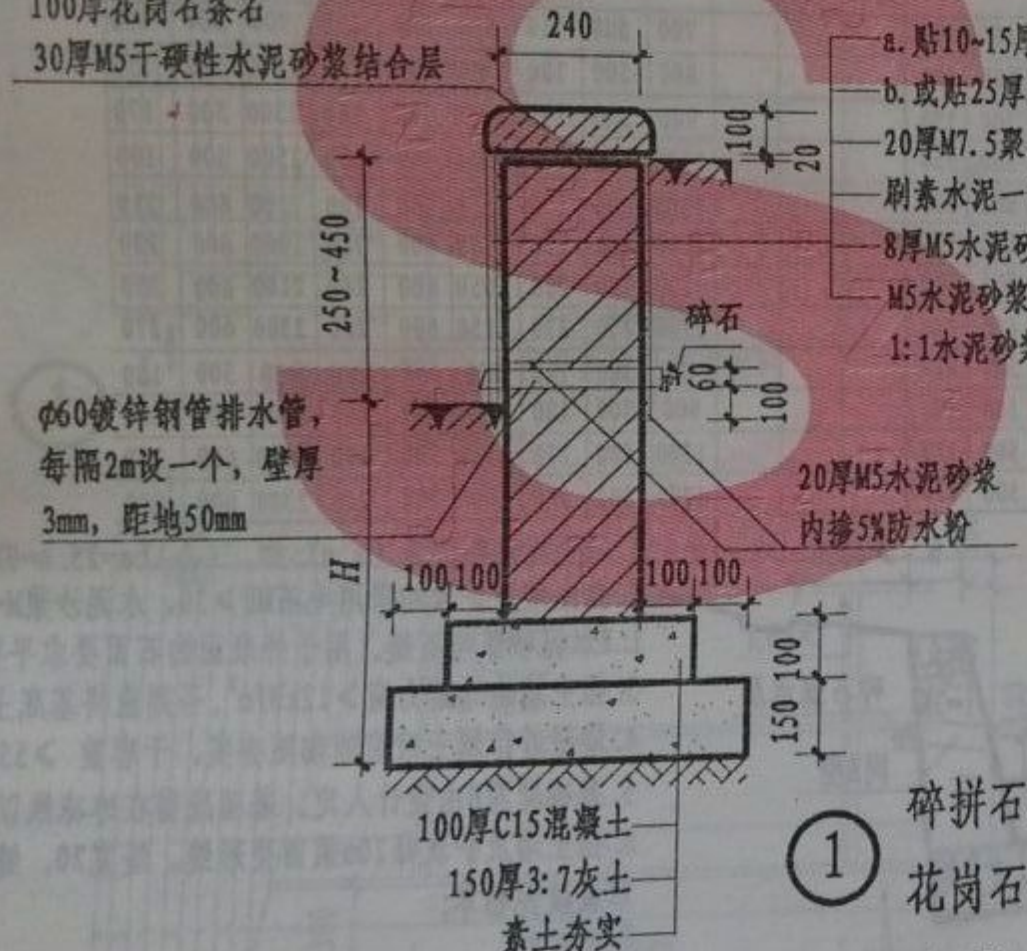
立面b



平面



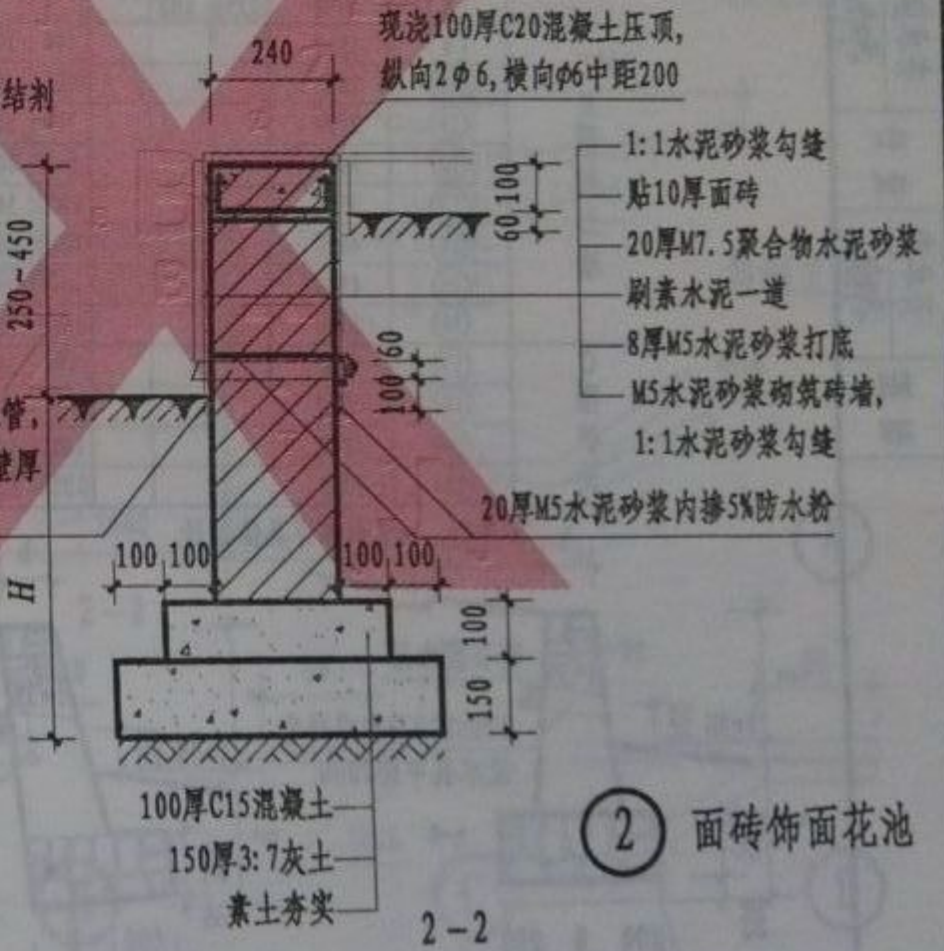
立面



1-1

① 碎拼石材饰面花池(*a*)
花岗石饰面花池(*b*)

b=200~300 *h*=200~400



2-2

② 面砖饰面花池

注：基础埋深*H*按工程设计。

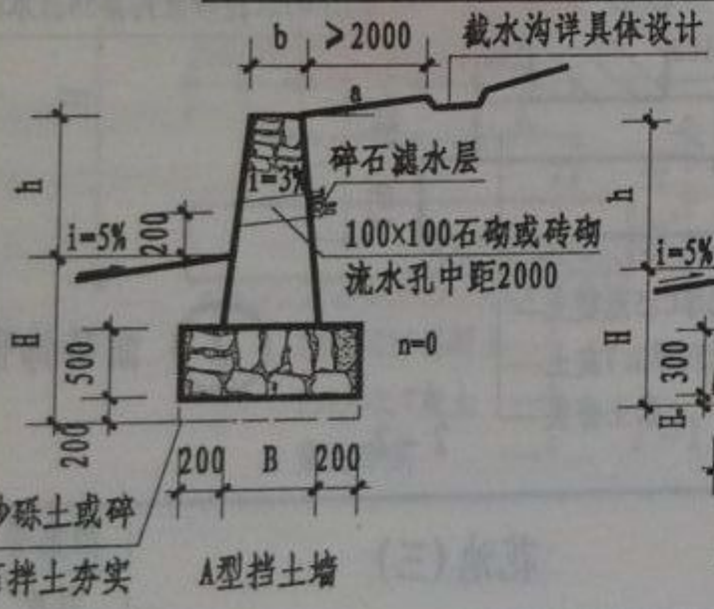
花池(三)	图集号	12J9-1
	页次	114

毛石挡土墙　　护坡选用表

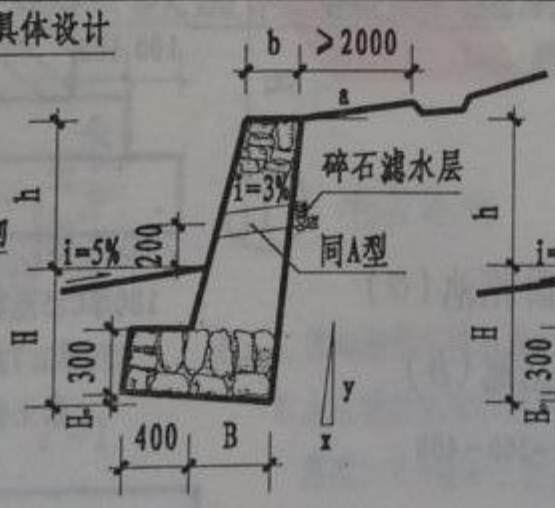
（假定条件：土壤内摩擦角φ=35，凝聚力c=0，外荷载A型：200~400kg/m²，B型：400kg/m²，C型：0kg/m²）

单位：mm

类型	编号	高度	a=10°												a=25°											
			n=0			n=1:3			n=1:4			n=1:5			n=0			n=1:3			n=1:4			n=1:5		
			B	b	H₁	B	b	H₁	B	b		B	b	H₁	B	b	H₁	B	b	H₁	B	b	H₁	B	b	H₁
A型挡土墙	①	1500	700	500											1000	500										
	②	2000	900	500											1200	500										
	③	2500	1100	500											1450	500										
	④	3000	1350	500											1700	600										
	⑤	3500	1600	600											1950	600										
	⑥	4000	1850	600											2200	600										
	⑦	4500	2100	600											2500	700										
	⑧	5000	2350	600											2800	700										
B型挡土墙	⑨	1500				500	500	90	600	500	100	700	500	110				700	500	110	850	500	130	900	500	130
	⑩	2000				600	500	100	700	500	110	800	500	120				800	500	120	1000	500	140	1100	500	150
	⑪	2500				700	500	110	800	500	120	900	500	130				900	500	130	1150	500	160	1300	500	170
	⑫	3000				800	500	120	1000	500	140	1100	500	150				1100	500	150	1350	500	180	1500	500	190
	⑬	3500				1000	500	140	1200	500	160	1300	500	170				1300	600	170	1550	600	200	1700	600	210
	⑭	4000				1200	600	160	1400	600	180	1500	600	190				1500	600	190	1750	600	220	1900	600	230
	⑮	4500				1400	600	180	1600	600	200	1700	600	210				1700	700	210	1950	600	240	2100	600	250
	⑯	5000				1600	600	200	1800	600	220	1900	600	230				1900	700	230	2150	600	260	2300	600	270
C型护坎	⑰	2000				500	500	90	600	500	100	700	500	110				700	500	110	800	500	120	900	500	130
	⑱	3000				700	500	110	800	500	120	900	500	130				900	500	130	1000	500	140	1200	500	160
	⑲	4000				1000	500	140	1200	500	160	1300	500	170				1300	500	170	1500	500	190	1800	600	220
	⑳	5000				1350	500	180	1600	500	200	1700	500	210				1700	500	210	2000	500	240	2300	600	270



A型挡土墙



B型挡土墙



C型护坎

注：
1. 选用时注明型号（a.n）.如 $\frac{3}{90}$（a=25.n=0）；
2. 挡土墙及护坎均采用毛石MU＞30、水泥沙浆M=5砌筑，1:2水泥砂浆勾石缝．用于外表面的石面要求平整；
3. 挡土墙的地耐力应＞12kN/m²，否则应将基底土夯实；
4. 墙壁若作填土时应随砌随夯实，干容重 ＞55g/cm³；
5. 基础埋深H由设计人定．基础底需在冰冻线以下；
6. 挡土墙及护坎每20m须留变形缝，缝宽20，缝内填黄泥夹草或胶泥稻草；
7. n=x:y；
8. 基础开槽后，如遇地下水时改用M5.0水泥砂浆．

毛石挡土墙　护坎

图集号　12J9-1

页次　115

立面

1

φ16 檩条 φ20

100 500 1100 500

300 <1500 按井口宽度均匀排列

钢筋支架

1

① 平面

玻璃钢或阳光板
φ16钢檩条
φ20钢筋支架

60 60 240

E 117 J 117

300 500 φ20钢筋

300 200 F 117 1000

用于混凝土挡墙 200
用于砖墙 240

1-1

玻璃钢或塑料波形瓦

G 117 K 117

300 500 L63x5 L50x5

300 200 H 117 1000

用于混凝土挡墙 200
用于砖墙 240

2-2

1200
375 375 350 100

100 500 B C D A

φ16 φ20

钢筋支架

1100

100 500 L63x5

角钢支架

φ16 50 φ20 A

2

L30x3 檩条 L63x5

100 500 1100 500

300 <1500 按井口宽度均匀排列

角钢支架

2

② 平面

50 φ20 φ16 B

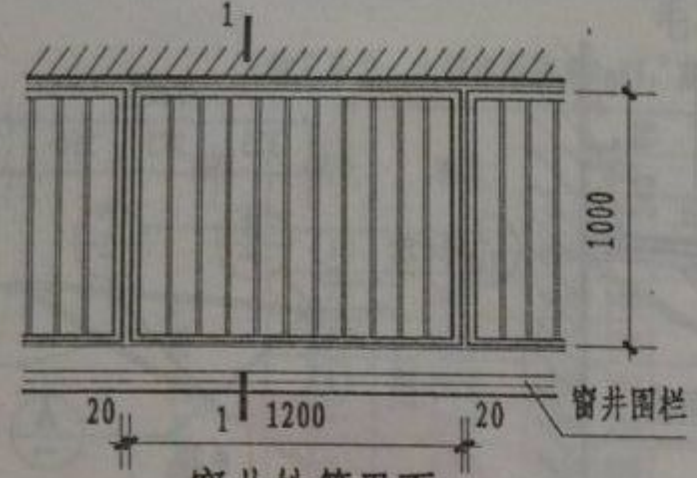
50 φ20 φ16 C

φ20 60 φ20 D

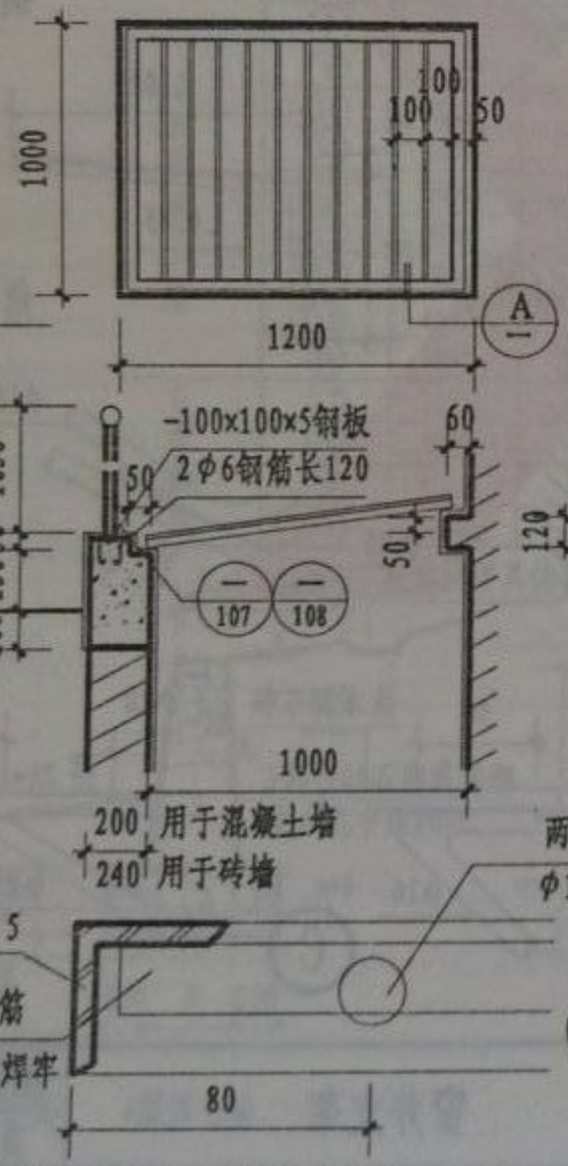
说明：钢筋支架屋面为不上人屋面

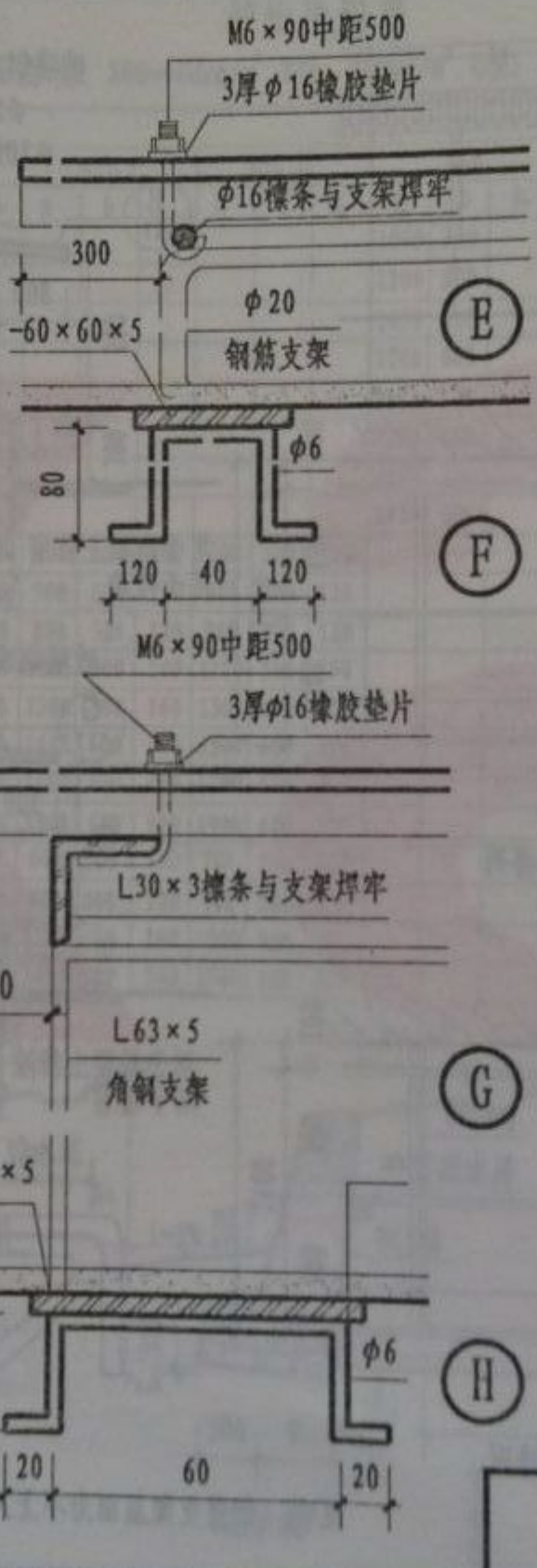
窗井支架

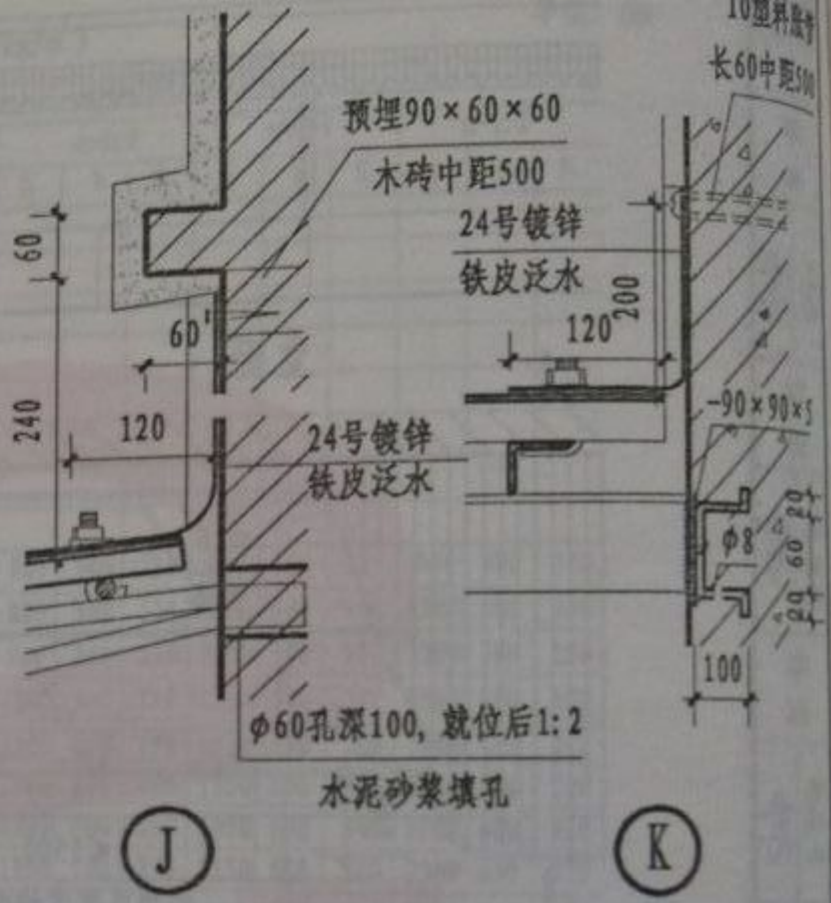
图集号	12J9-1
页次	116



窗井铁箅平面

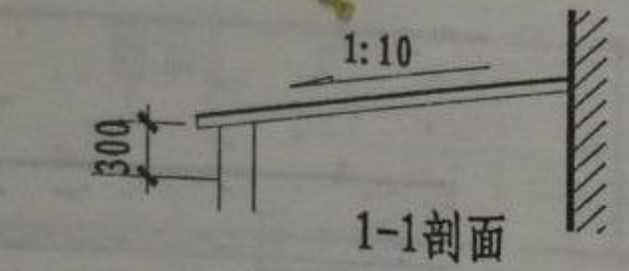




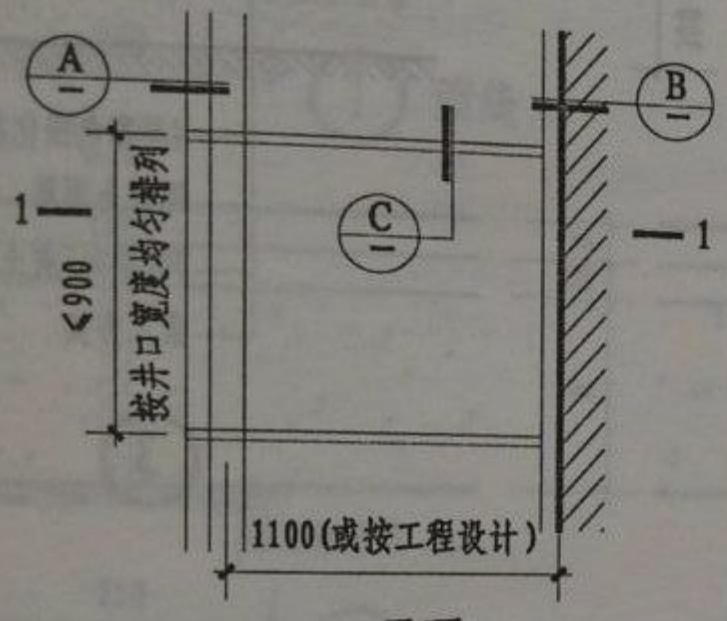


注：
1. 窗井架、铁箅子等所有铁件连接均为焊接；
2. 玻璃钢及塑料波形瓦搭接长度，横向长度均压两个半波，纵向＞100；
3. 所有铁件均刷防锈漆一道，调和漆二道，油漆颜色由设计人定；
4. 角钢支架用于砖墙时，需将埋件埋入C15混凝土240×240×240预制块内，砌入砖中。

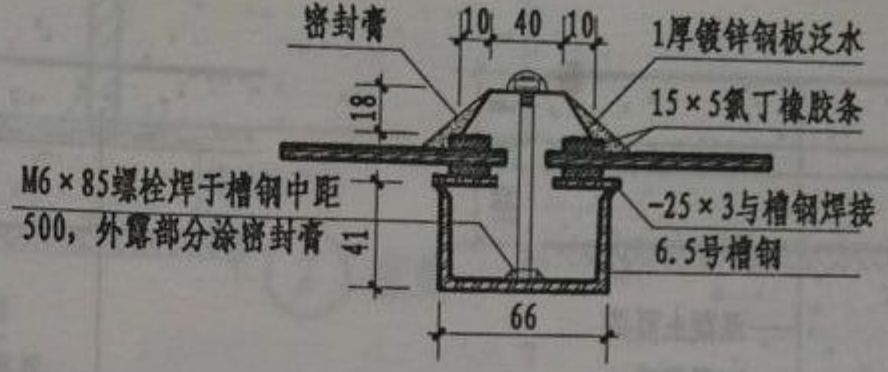
窗井铁箅及围栏	图集号	12J9-1
	页次	117



1-1剖面

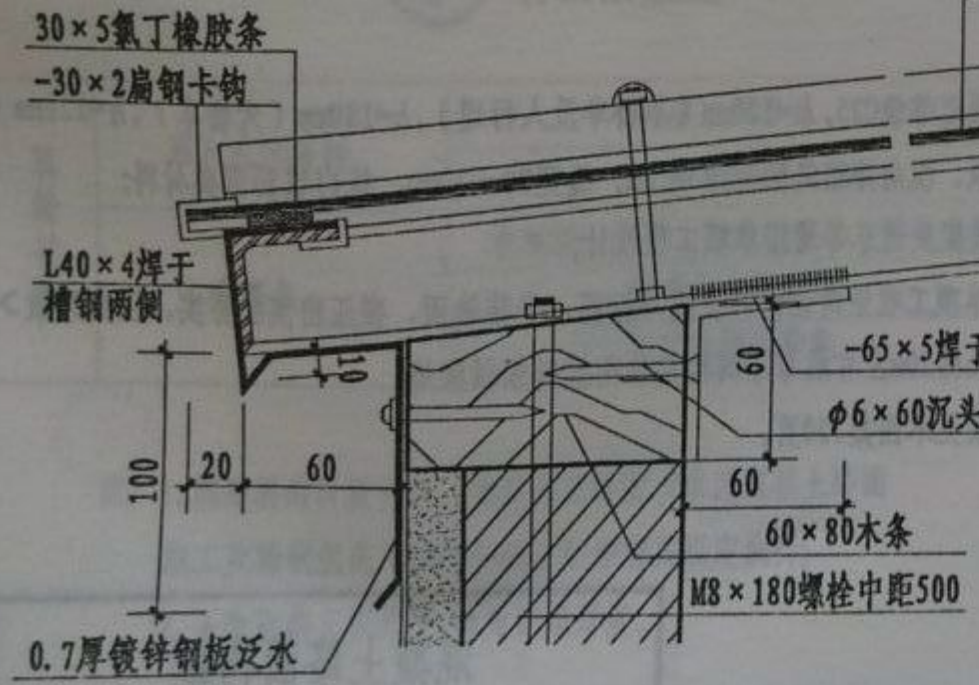


平面



C

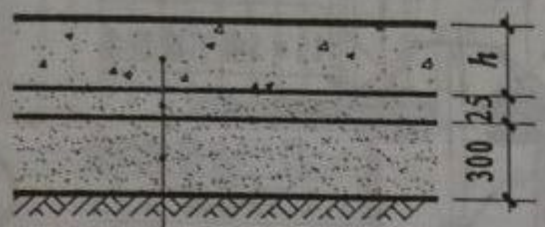




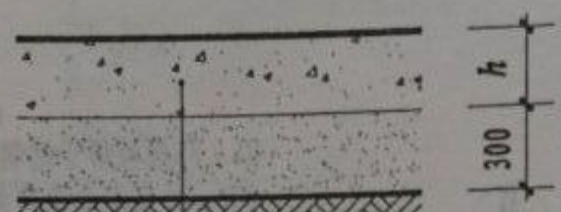
A

B

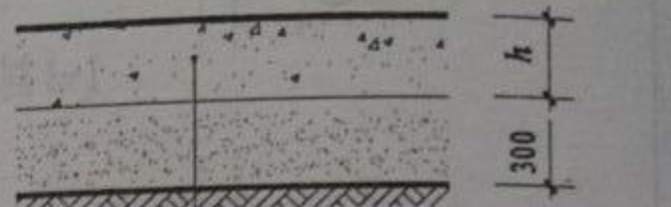
夹胶玻璃盖板窗井	图集号	12J9-1
	页次	118



①



②



③

④

注：1. 道路混凝土强度等级C25，h=120mm（小轿车及人行道），h=180mm（大轿车），h=220mm（卡车）；

2. 混凝土路面纵、横向伸缩缝间距为3~6m，缝宽20~30mm，缝内填沥青类材料；

3. 路面宽度、坡度及道牙等均按单项工程设计；

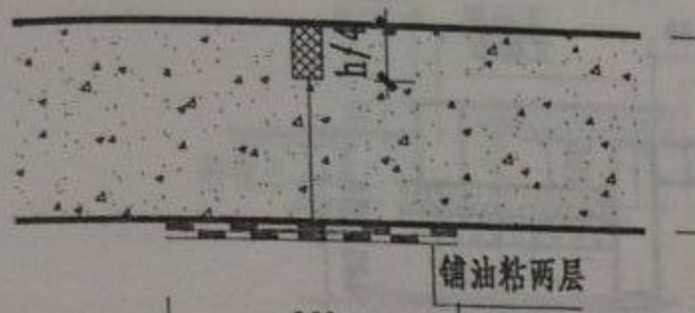
4. 路基应根据单项工程竖向设计的坡度与标高，平整地面、碾压密实或夯实，压实系数>0.98（环刀取样）；

5. 混凝土纵向长约20m左右或与不同构筑物衔接时须做胀缝；

6. 混凝土缝做法见本图集120页。

混凝土路面构造

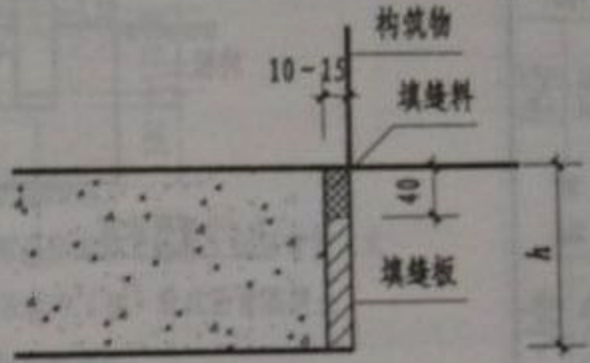
图集号	12J9-1
页 次	119



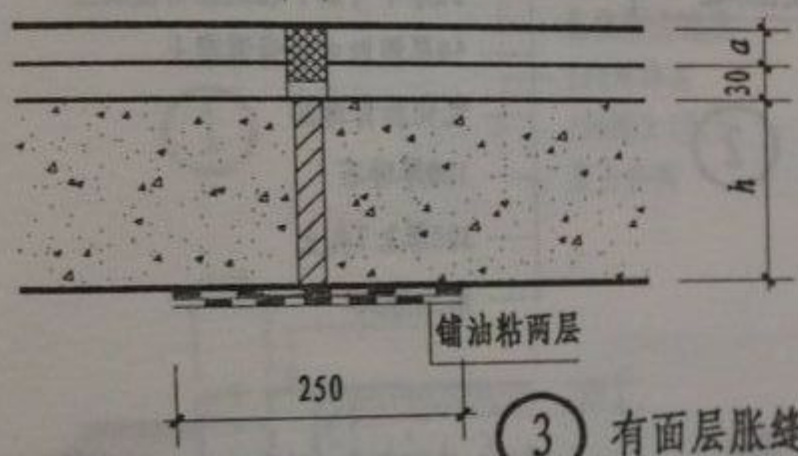
① 缩缝



② 胀缝



与构筑物胀缝

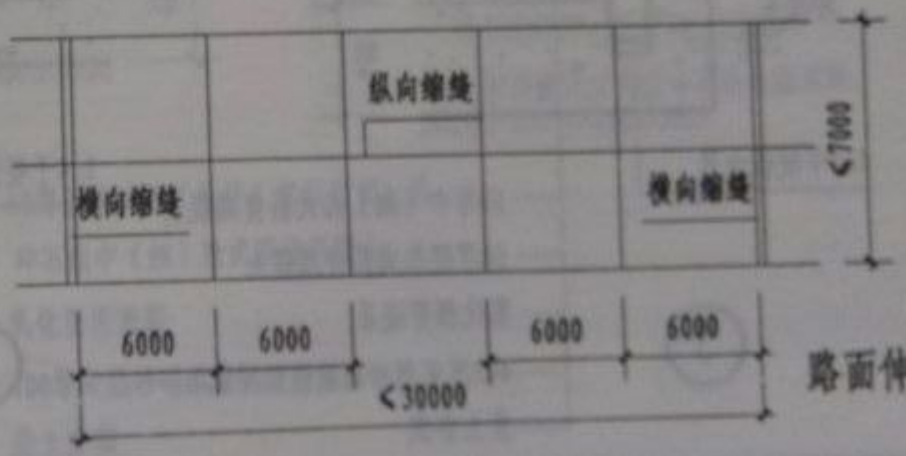


③ 有面层胀缝



④ 有面层缩缝

填缝材料	灌入式填缝料	聚氯乙烯胶泥
		沥青胶泥
	嵌缝条	软木板，聚氯乙烯泡沫塑料，沥青油毡
		沥青橡胶胀缝条
		氯丁橡胶嵌缝条

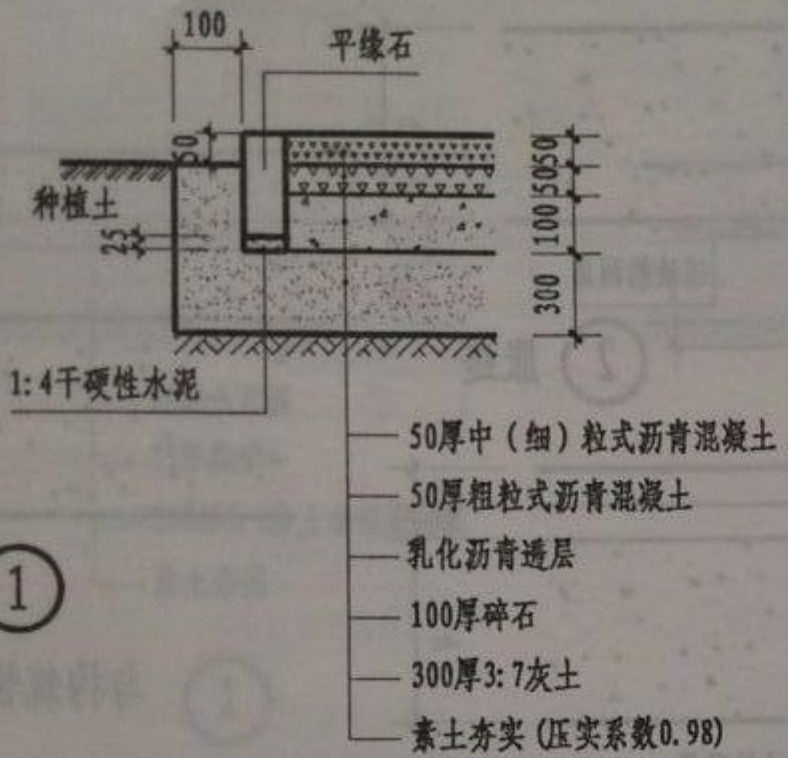


路面伸缩缝

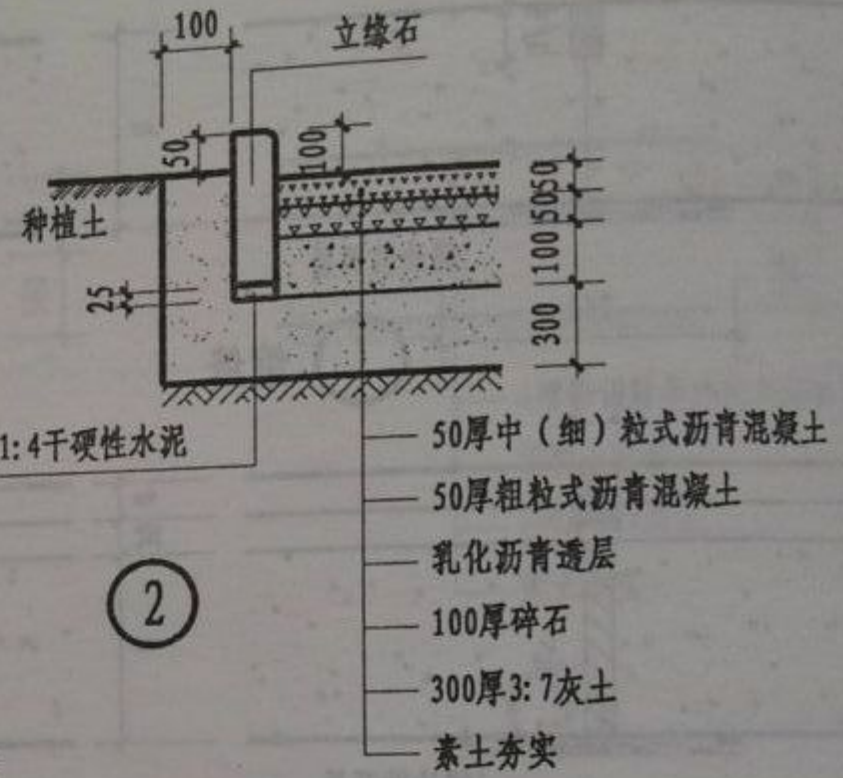
注：1. 填缝料的材质要求、接缝施工等按《水泥混凝土路面施工及验收规范（GBJ97-87）》中有关规定执行；

2. h为混凝土板厚度，a为面层厚度。

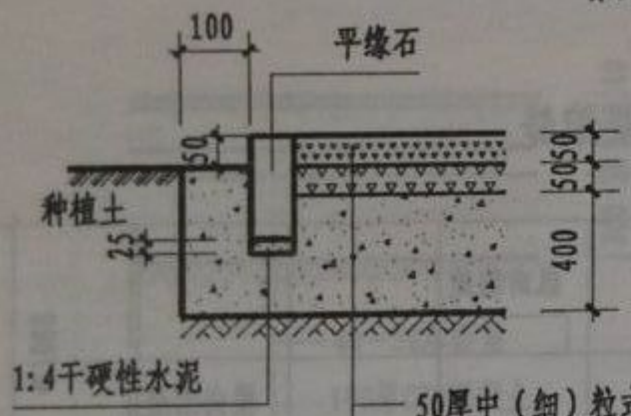
混凝土路面变形缝构造	图集号	12J9-1
	页 次	120



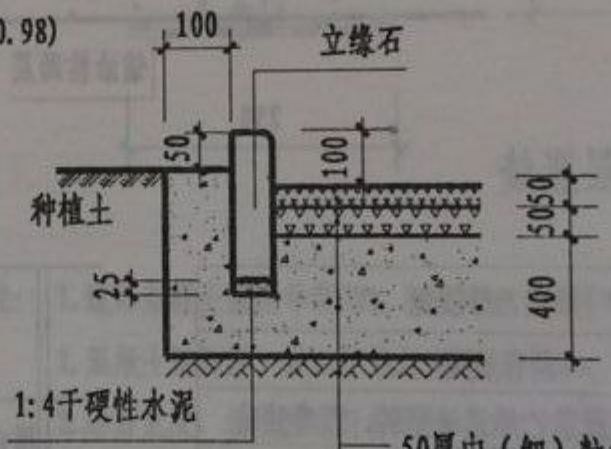
①



②



③



④

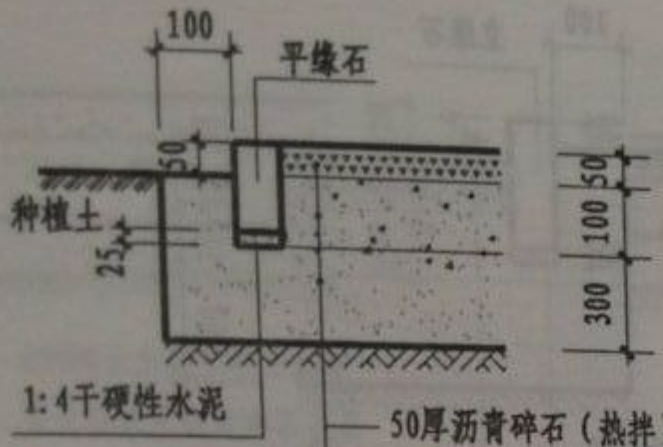
注：1. 路面宽度、坡度及道牙等均按单项工程设计；

2. 乳化沥青透层的沥青用量1.0L/m，上铺5～10mm，碎石或粗砂，用量3m³/1000m²；

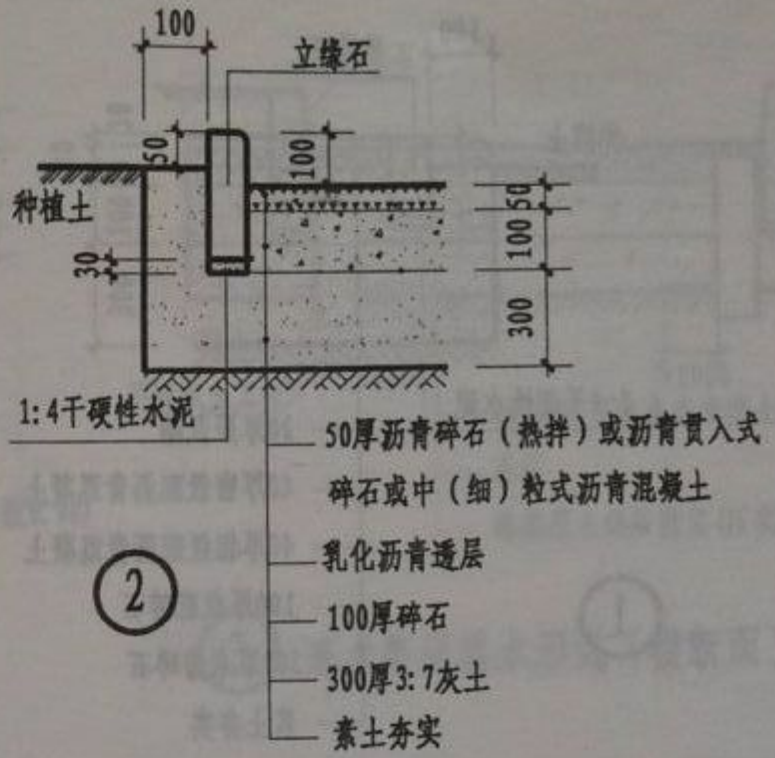
3. 本图适用于2t＜汽车吨位＜4t的承载道路。

沥青路面构造（一）	图集号	12J9-1
	页 次	121

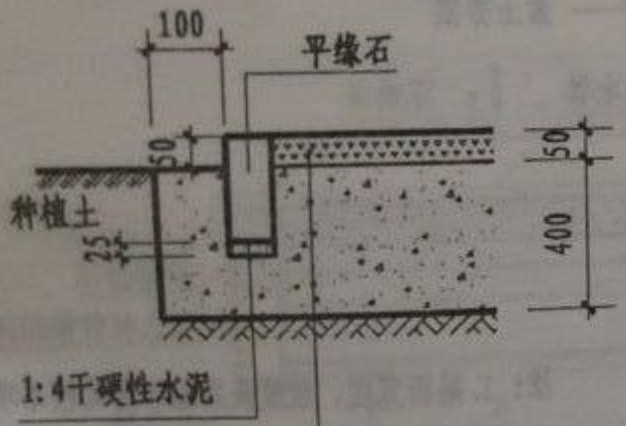
审核 张恒 校对 齐卓彦 设计 齐卓彦



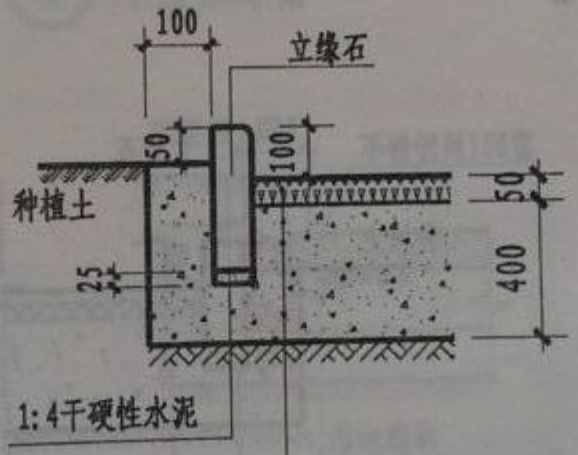
①



②



③



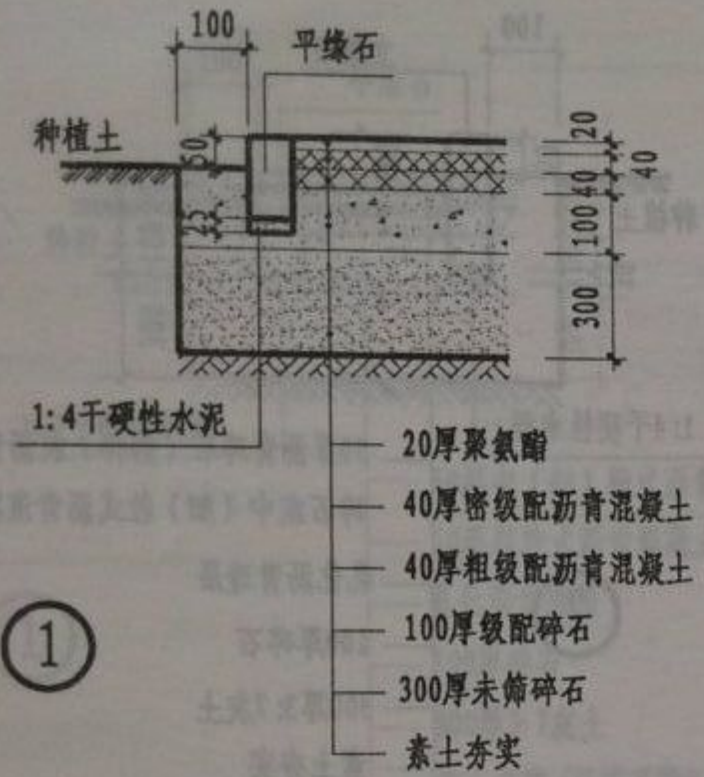
④

注：1. 路面宽度、坡度及路缘石等均按单项工程设计；

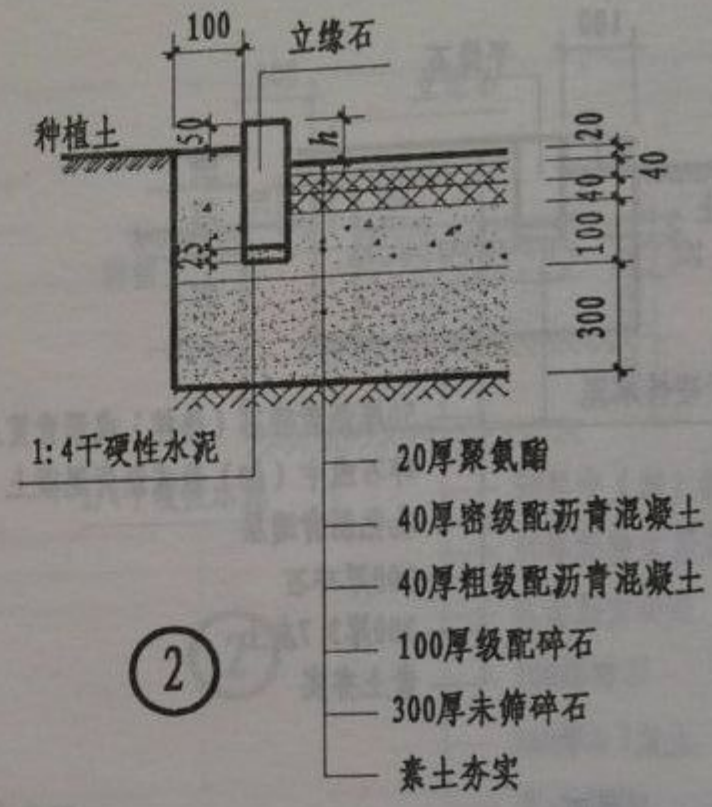
2. 乳化沥青透层的沥青用量1.0L/m²，上铺5～10mm碎石或粗砂，用量3m³/1000m²；

3. 本图适用于吨位＜2t的承载道路。

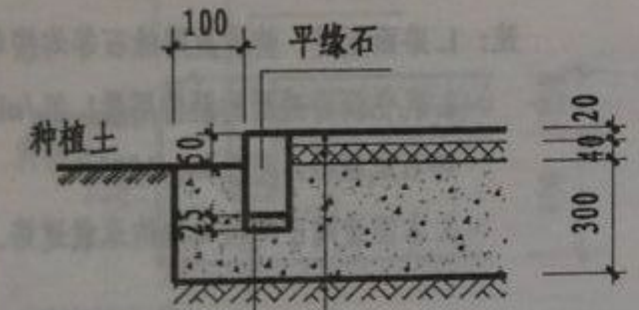
沥青路面构造（二）	图集号	12J9-1
	页　次	122



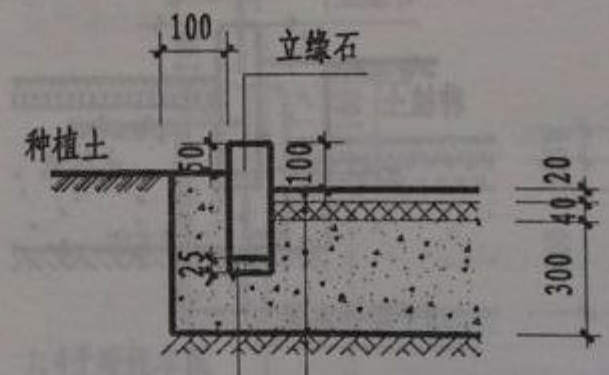
①



②



③

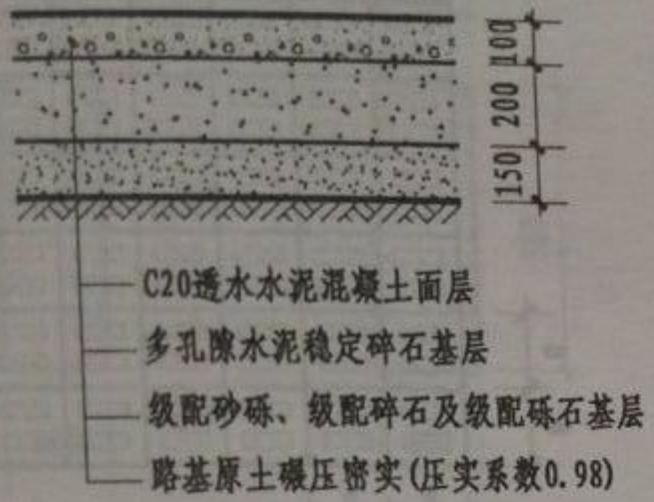


④

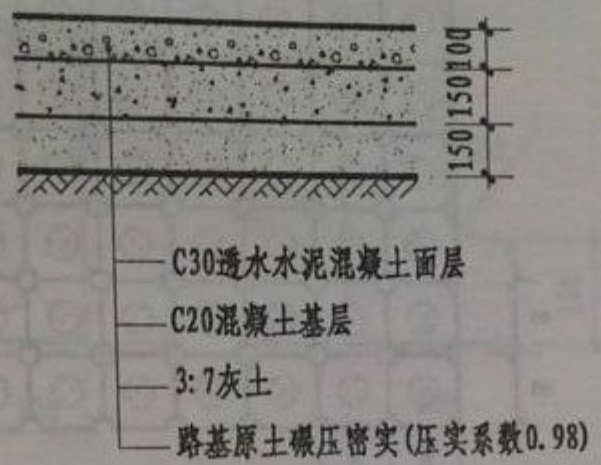
注：1. 路面宽度、坡度及路缘石等均按单项工程设计；

2. 缘石外露高度h为50～150mm；

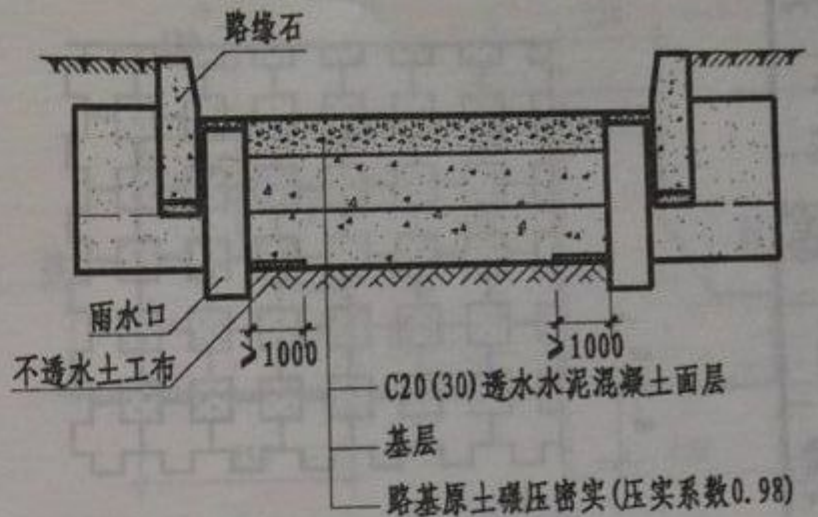
3. 本图适用于吨位＜2t的承载道路。



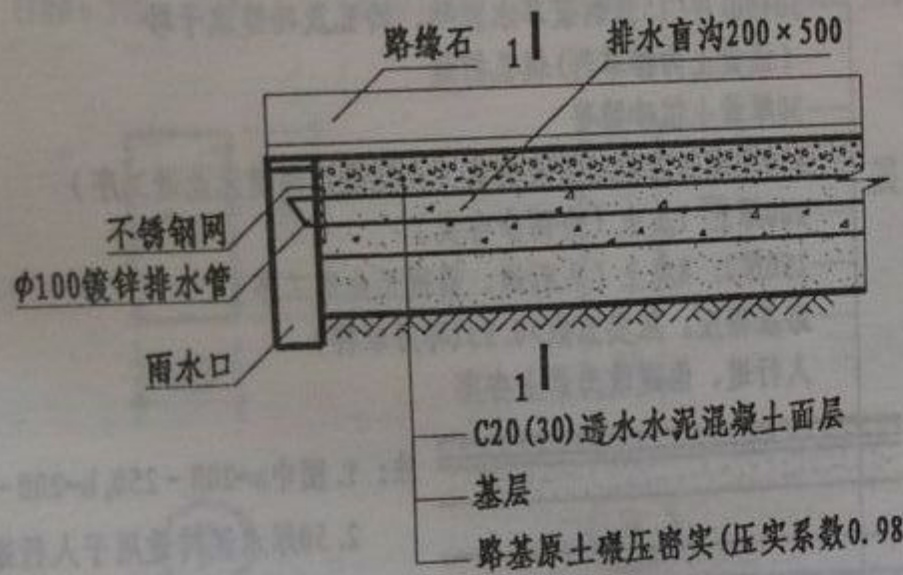
① 全透水路面

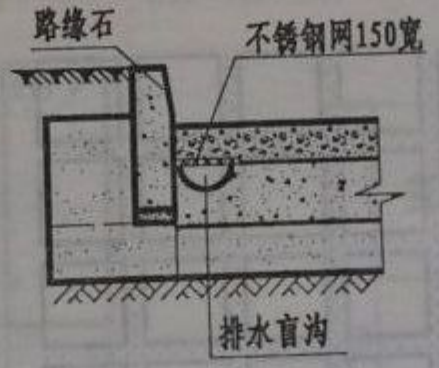


② 半透水路面



③ 透水路面排水形式（横断面）





1-1

④ 透水路面排水盲沟设置（纵断面）

注：1. 全透水结构混凝土路面适用于人行道、非机动车道、景观硬地、停车场、广场；

2. 半透水结构混凝土路面适用于轻型荷载道路；

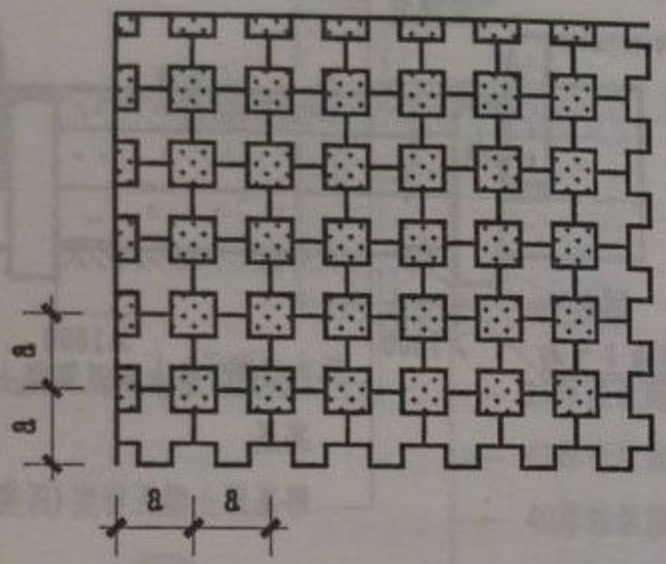
3. 透水混凝土路面基层横坡度宜为1%～2%，面层横坡度应与基层横坡度相同；

4. 面层若为彩色面层，其彩色渗透厚度＞30mm

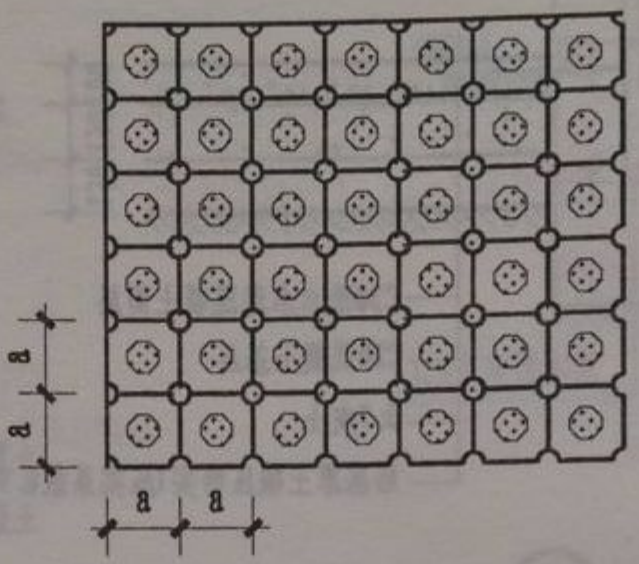
5. 透水水泥混凝土面层胀缝间距＜30m

4. 透水水泥混凝土面层与侧沟、建筑物、雨水口、铺面的砌块、沥青铺面等其他构造物连接处，应设置胀缝.

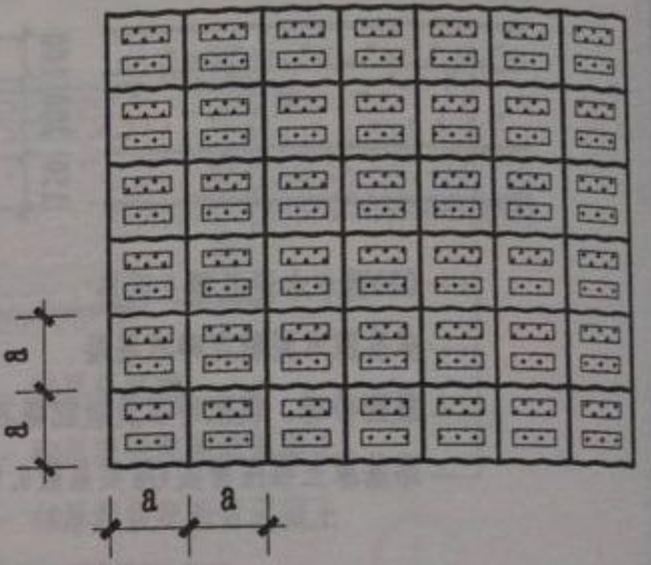
透水路面构造(一)	图集号	12J9-1
	页 次	124



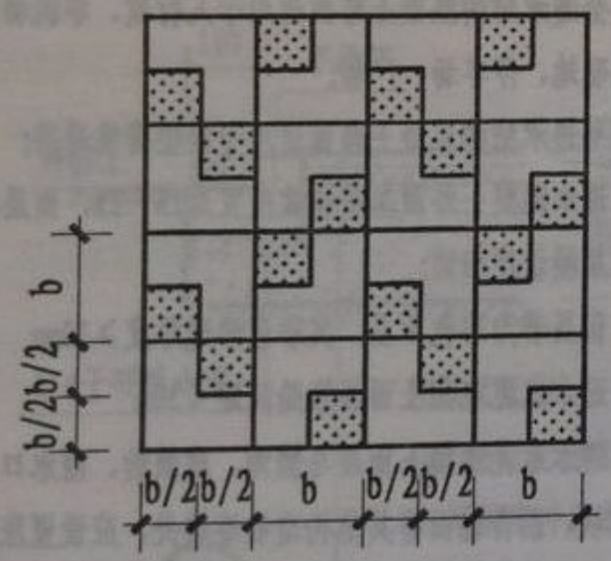
① 型或 型嵌草砖



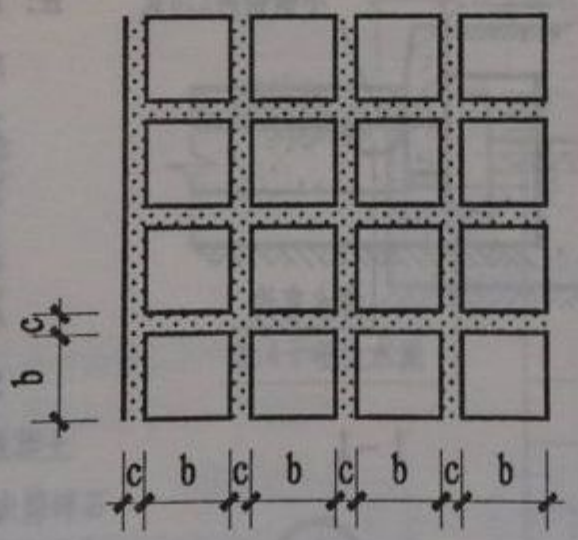
② 型嵌草砖



③ 型嵌草砖

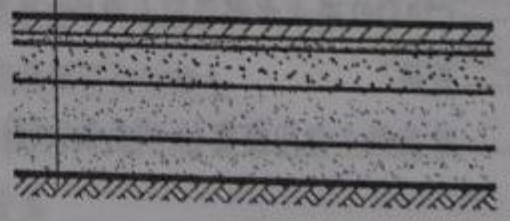


④ 型嵌草砖



⑤ 水泥砖间嵌草

50(80)厚C15预制嵌草水泥砖，砖孔及砖缝填干砂
（或黄土内掺草籽）填孔扫缝
30厚黄土粗砂铺平
150厚碎石或卵石碾压密实（人行道、甬道无此道工序）
200厚3：7灰土（分两步夯实）
150厚2：8灰土（人行道、甬道无此道工序）
路基碾压，压实系数>0.93(环刀取样)
人行道、甬道改为素土夯实

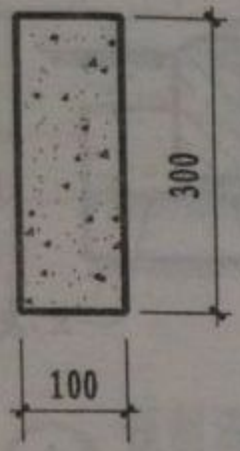


注：1. 图中a=200～250, b=200～400, c>100
2. 50厚水泥砖适用于人行道、甬道，
80厚水泥砖适用于停车场.

嵌草水泥砖路剖面

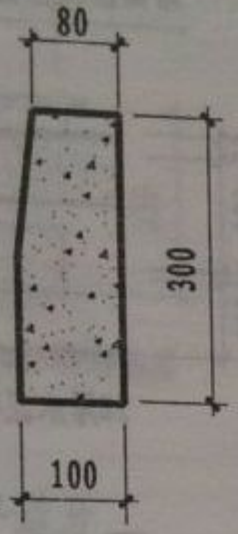
透水路面构造（二）

图集号	12J9-1
页 次	125



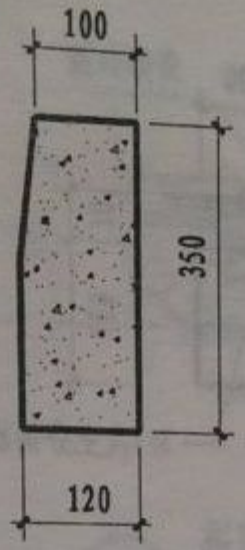
① 立缘石

(100×300×495)



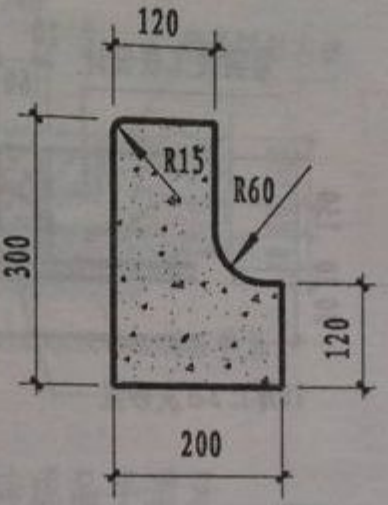
② 立缘石

(80/100×300×495)



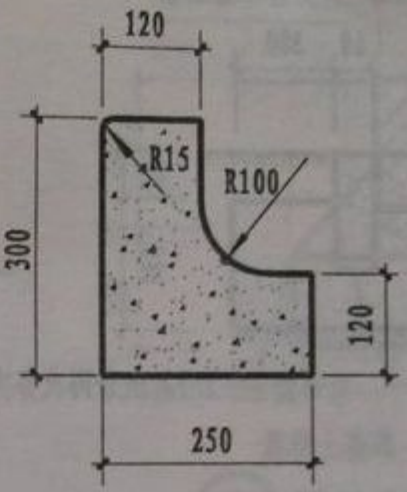
③ 立缘石

(100/120×350×495)



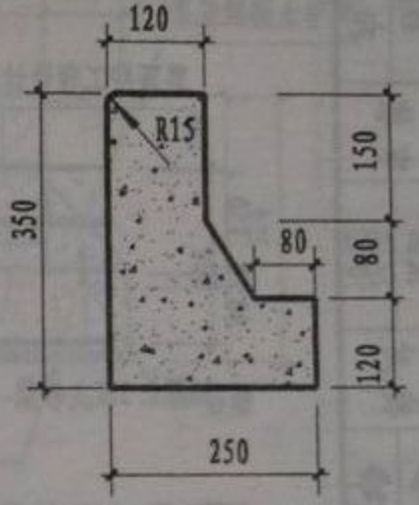
④ 立缘石

(120×300×745)



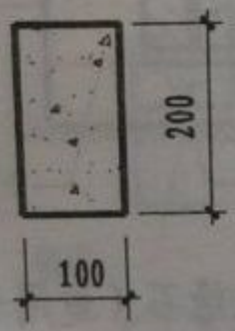
⑤ 立缘石

(120×300×745)



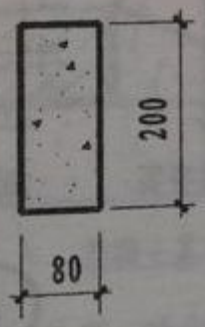
⑥ 立缘石

(120×350×745)



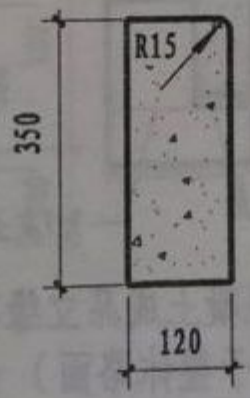
⑦ 平缘石

(100×200×495)



⑧ 平缘石

(80×200×495)



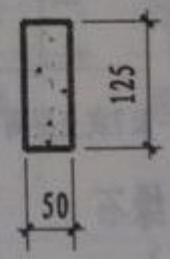
⑨ 平缘石

(120×350×495)



⑩ 平缘石

(50×200×495)



⑪ 平缘石

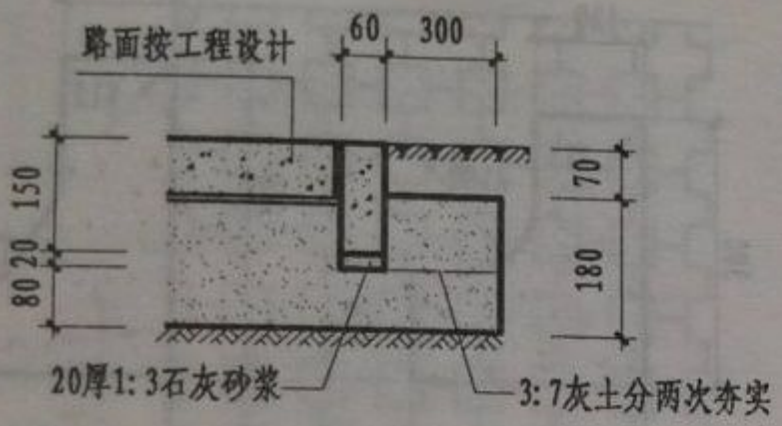
(50×125×495)

注：1. 混凝土路缘石强度等级为C30，长度可根据实际需要确定；

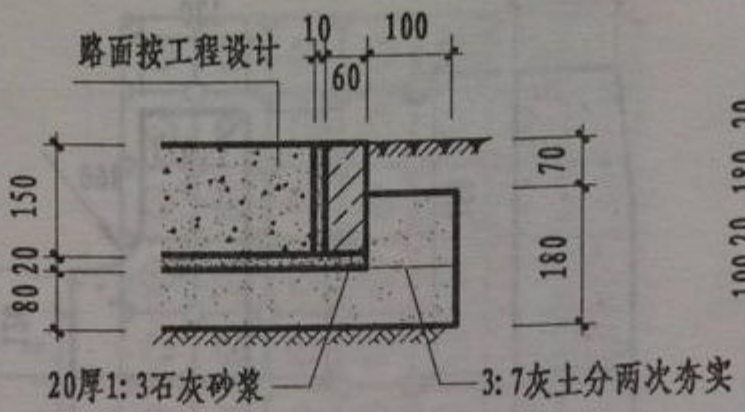
2. 缘石之间采用1:3水泥砂浆勾缝，缝宽5mm；

3. 石材、仿木及木桩缘石需要根据实际设计尺寸加工。

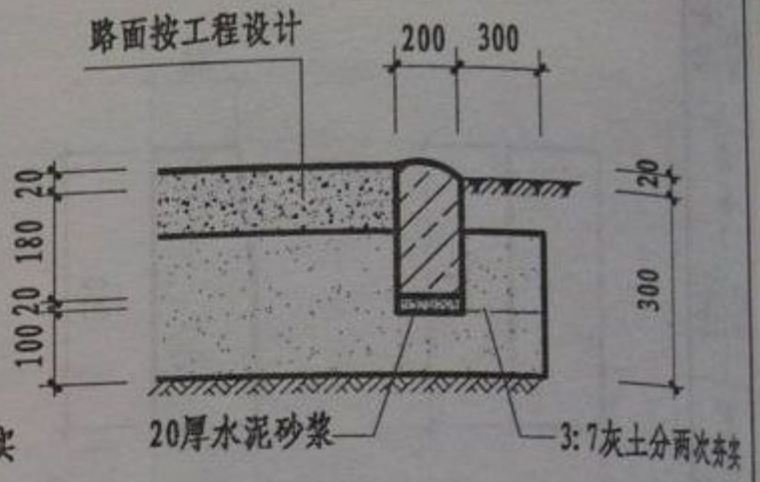
常用路缘石	图集号	12J9-1
	页 次	126



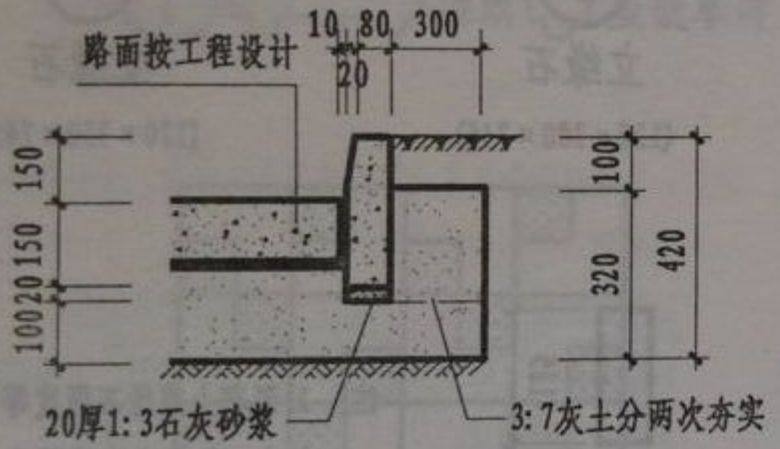
① 预制混凝土平缘石（适用于步道）



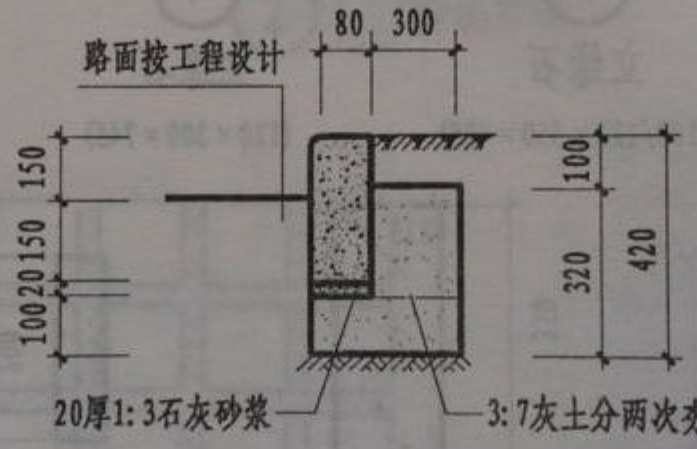
② 花岗岩平缘石（适用于步道）



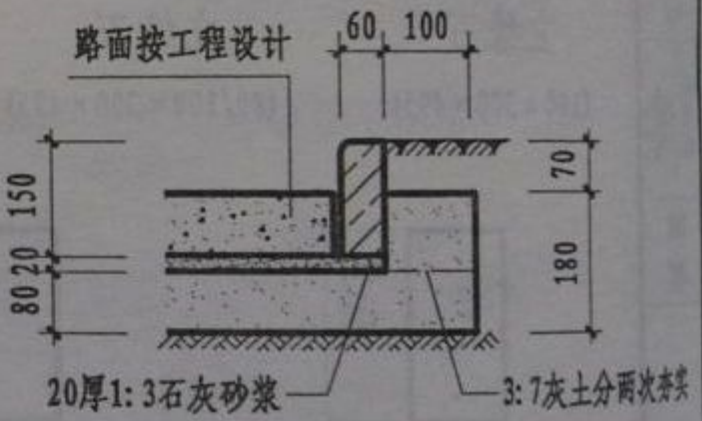
③ 圆石（或块石）平道牙



④ 预制混凝土成品立缘石
（适用于块料路面）



⑤ 预制混凝土成品立缘石
（适用于整体路面）



⑥ 花岗石立缘石（适用于步道）

注：1. 两节缘石相接处留缝5宽，缘石与路面整体面层留缝10，1:3水泥砂浆挤严后勾缝；

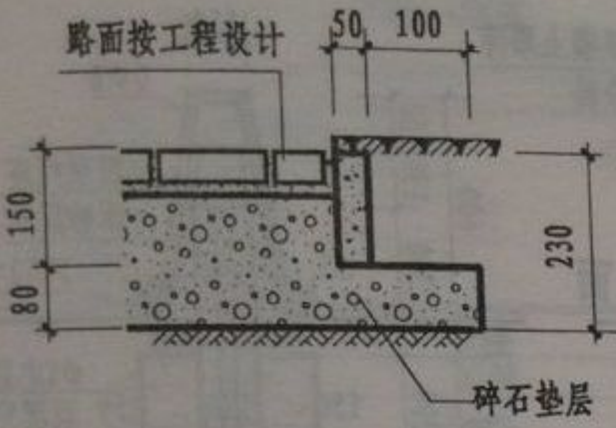
2. 缘石背面及下面用3：7灰土夯实；

3. 条形树池边牙可选用立栽缘石；

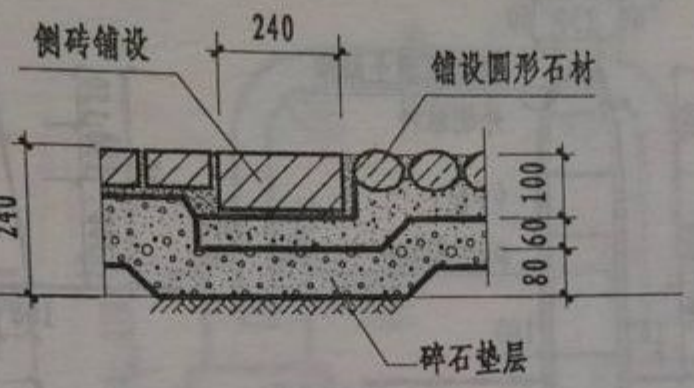
4. 预制混凝土道牙选用C25混凝土。

常用路缘石安装模式(一)

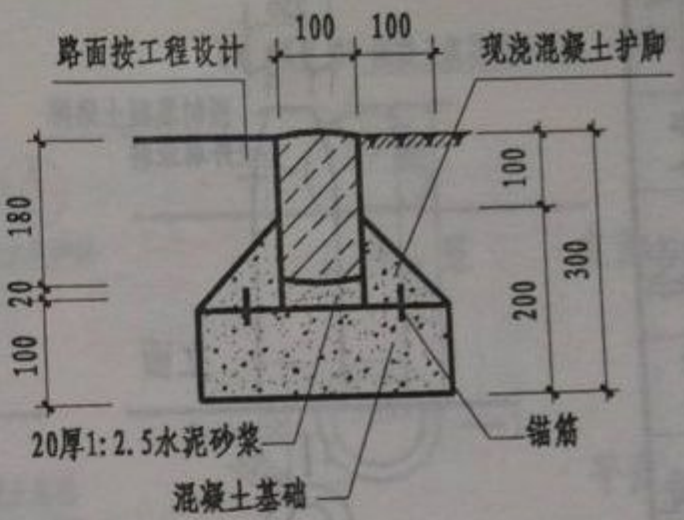
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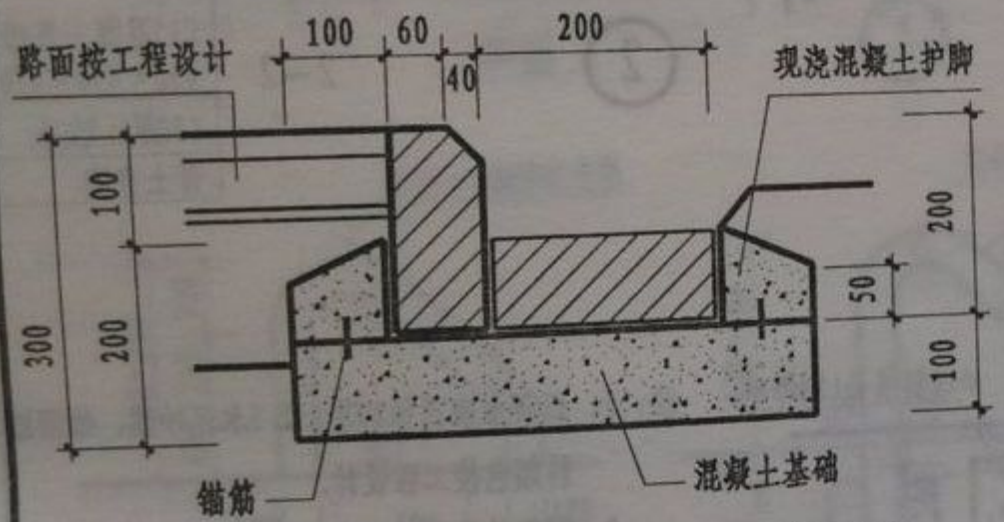
① 预制混凝土平道牙
（适用于步道）



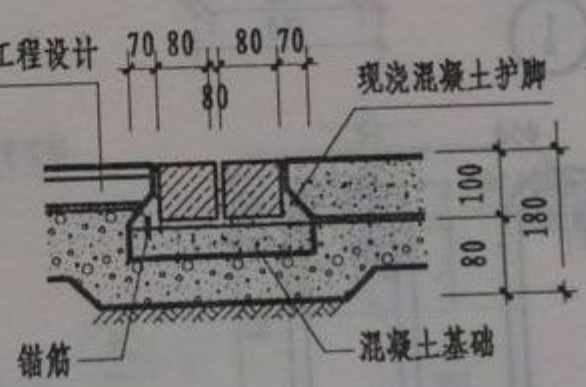
② 高强砖成品平道牙
（适用于步道）



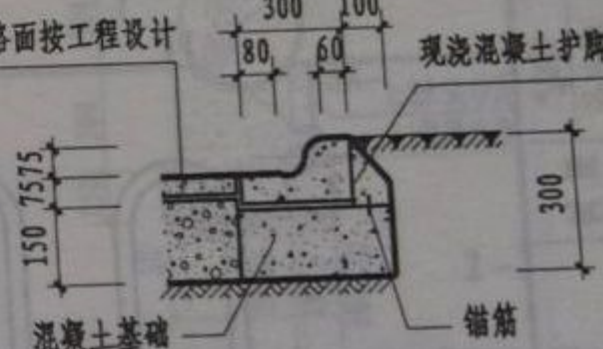
③ 圆石（或块石）平道牙



④ 高强砖成品立道牙-砖制边沟



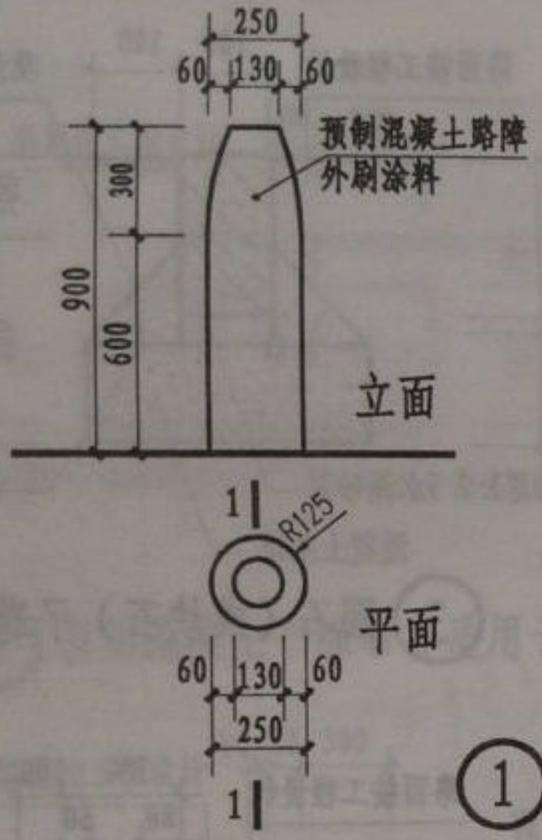
⑤ 方块毛石平道牙



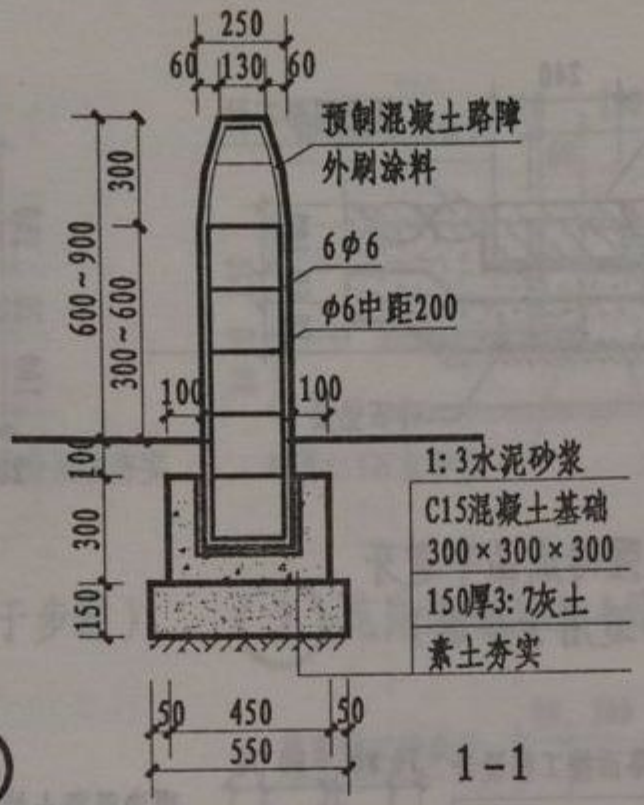
⑥ 预制混凝土道牙

注：1. 两节道牙相接处留缝5宽，道牙与路面整体面层留缝10，1:3水泥砂浆挤严后勾缝；
2. 高强砖一般指混凝土砌块系列产品，品种规格以厂家提供产品为准；
3. 预制混凝土道牙选用C25混凝土.
4. 锚筋采用φ6钢筋，长80，间距900；
5. 混凝土基础及护脚采用现浇C10混凝土.

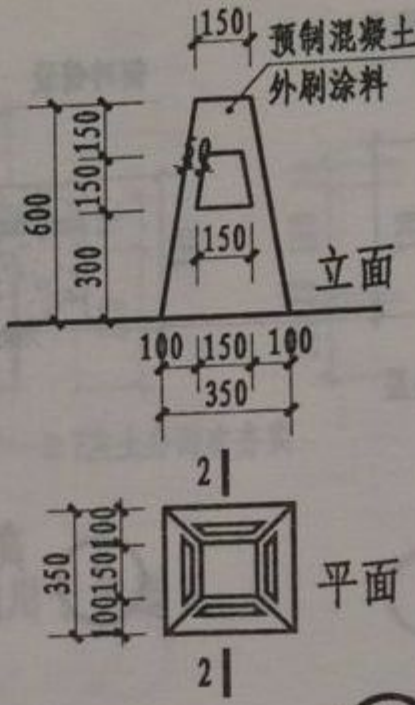
常用路缘石安装模式(二)	图集号	12J9-1
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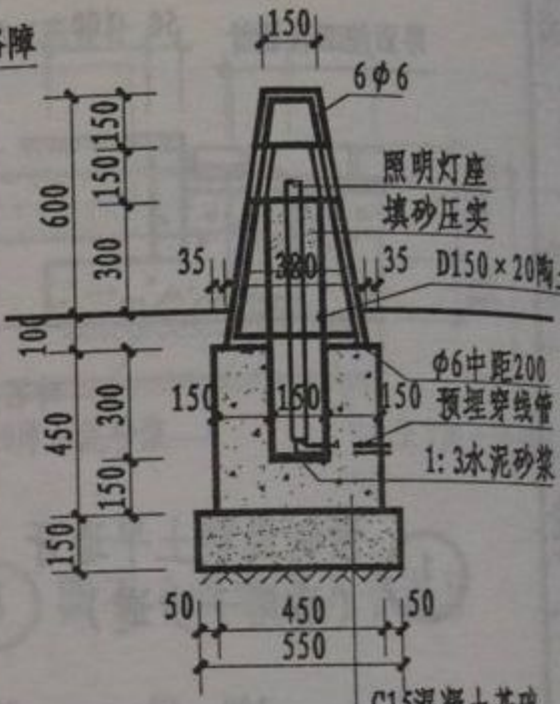
①



1-1

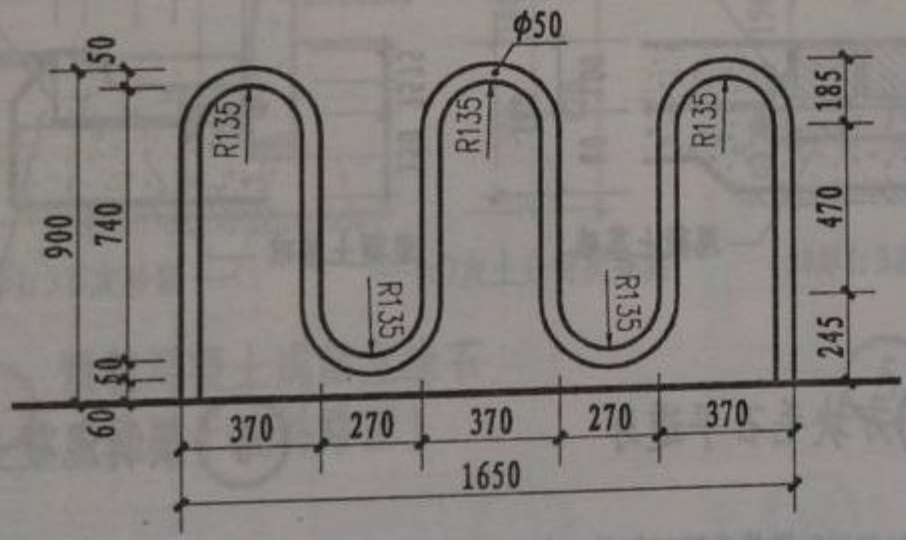


②

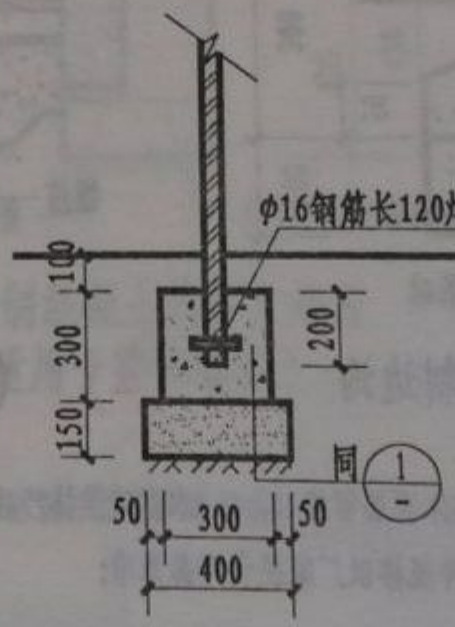


2-2

C15混凝土基础
450×450×450
150厚3:7灰土
素土夯实



③



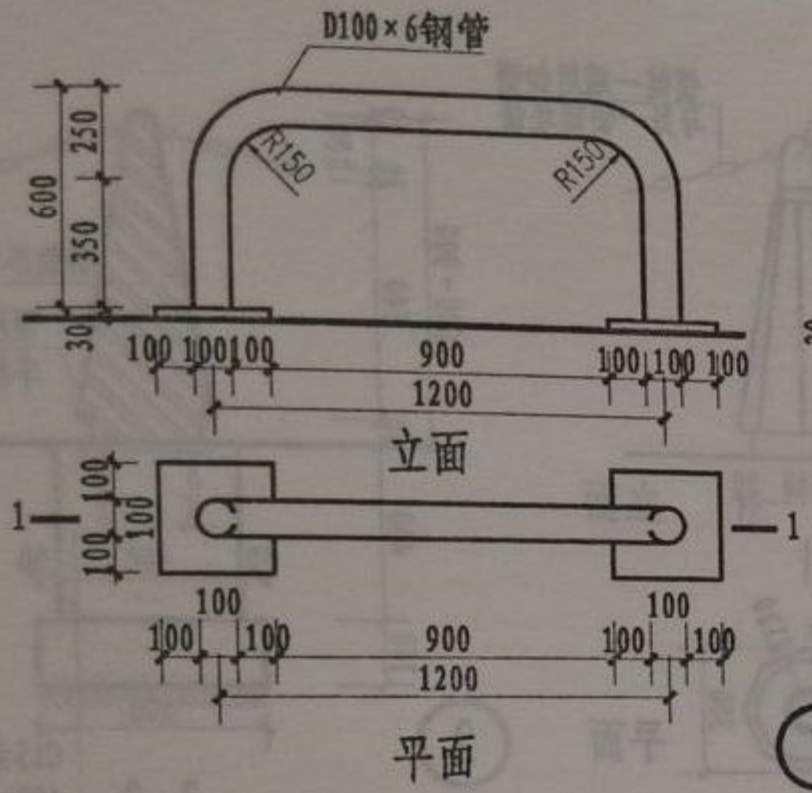
3-3

注：1、混凝土表面抹20厚1:2.5水泥砂浆，饰面涂料颜色按工程设计。

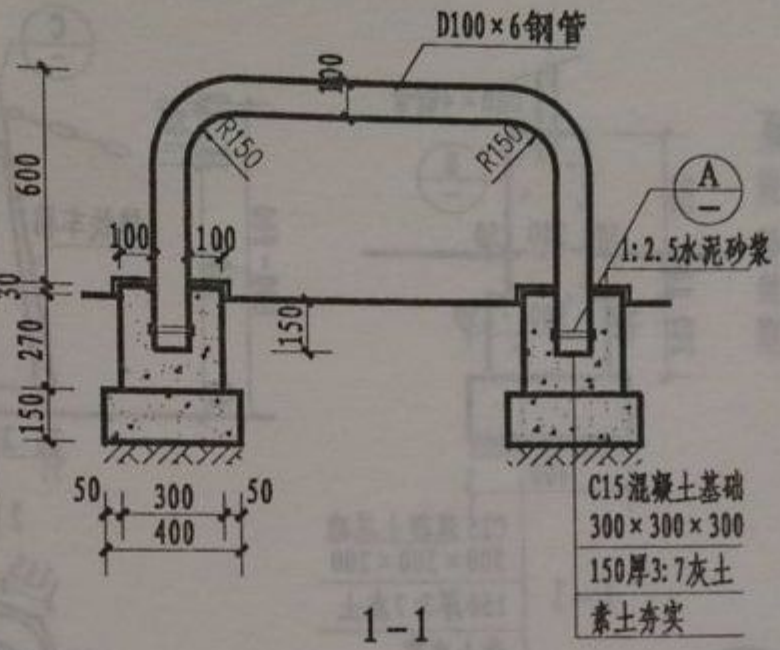
2、露明铁件刷防锈漆二道，调和漆二道，颜色按工程设计。钢材连接方式为焊接。

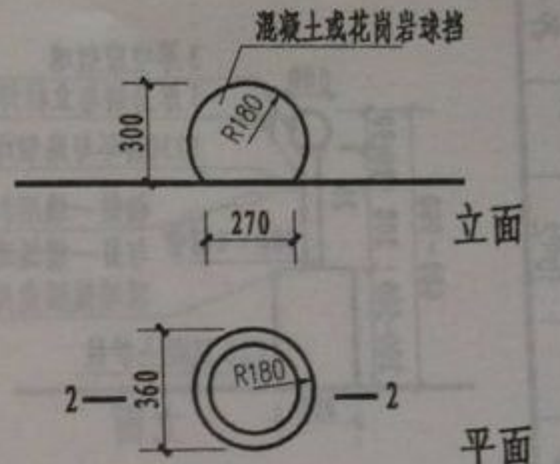
路障（一）

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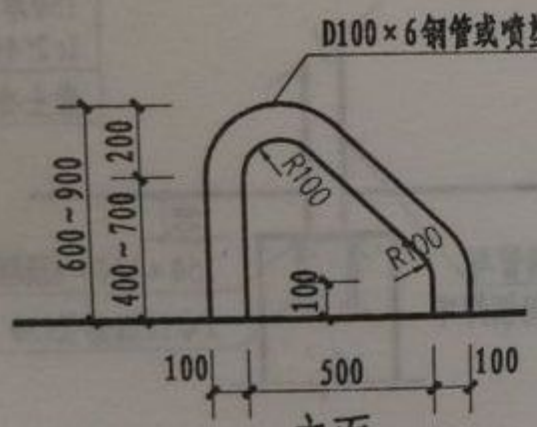
①



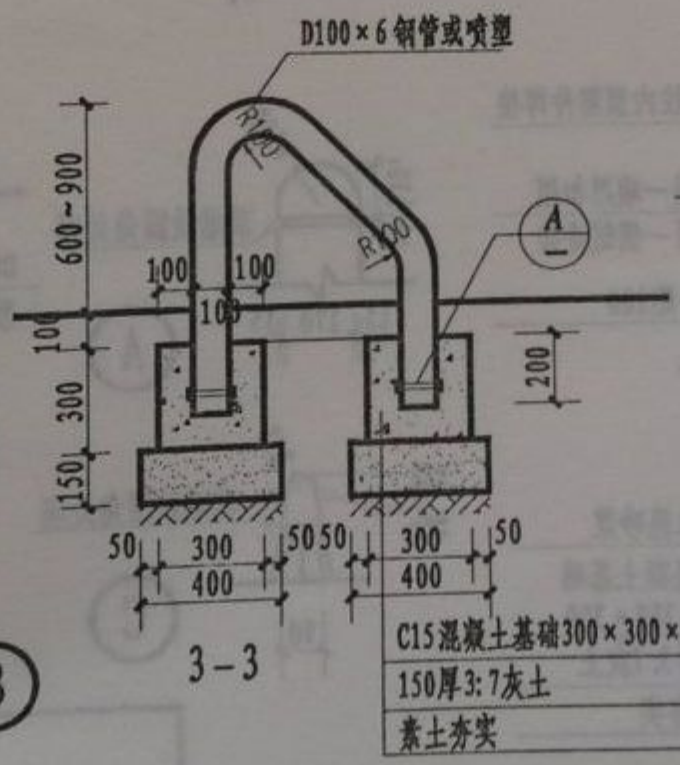


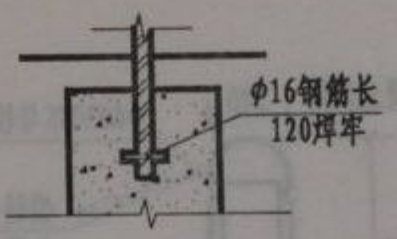


②



③



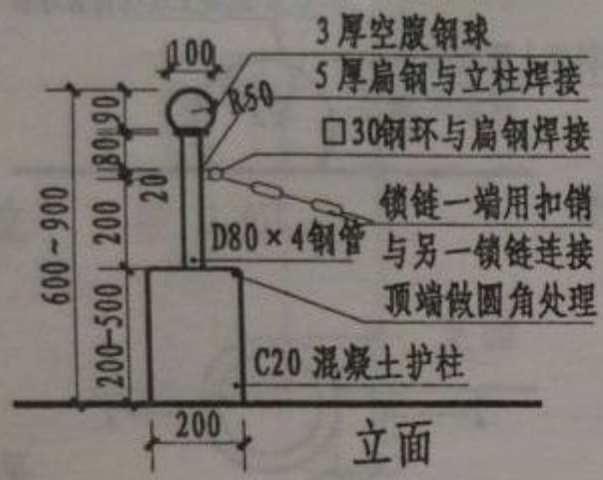


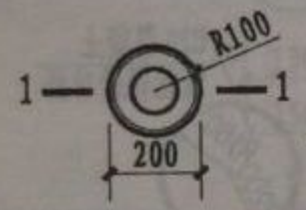
Ⓐ

注：1、混凝土表面抹20厚1:2.5水泥砂浆，饰面涂料颜色按工程设计。

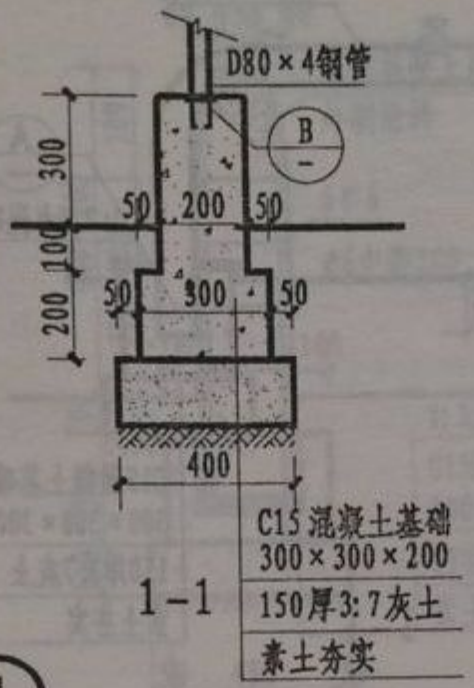
2、露明铁件刷防锈漆二道，调和漆二道，颜色按工程设计。钢材连接为焊接。

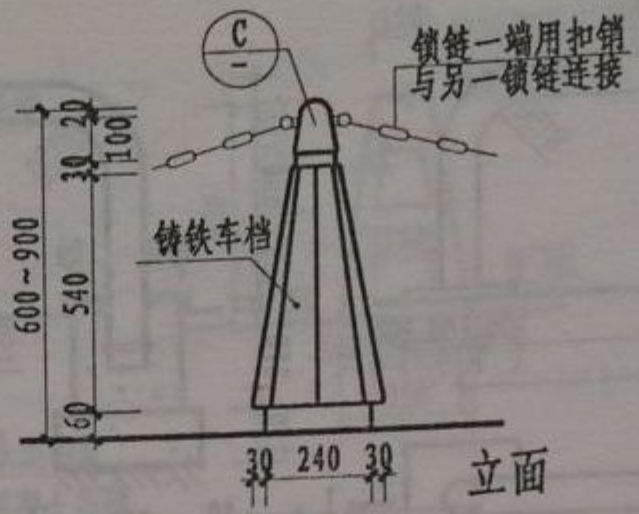
路障（二）	图集号	12J9-1
	页次	130



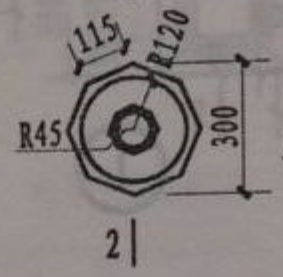


①

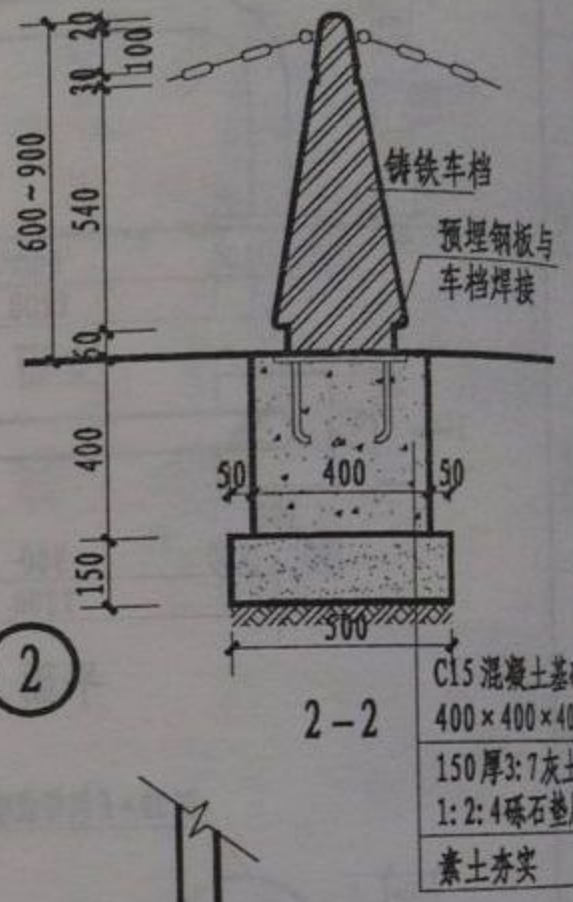


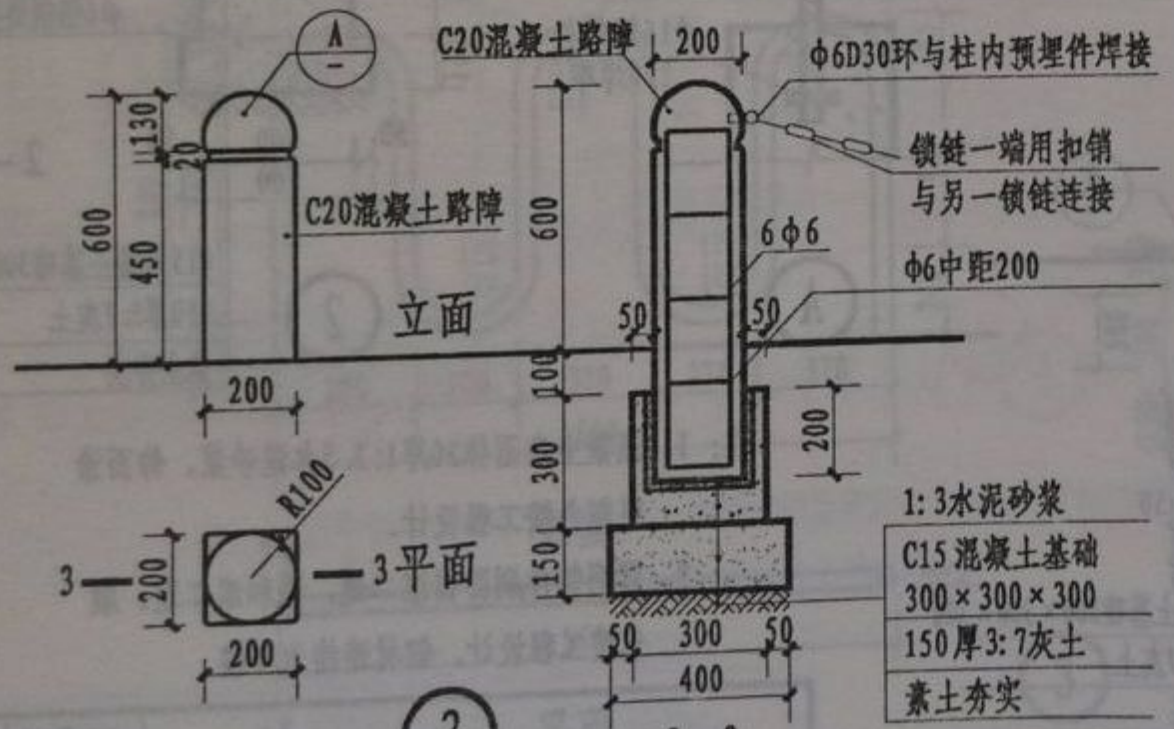


2

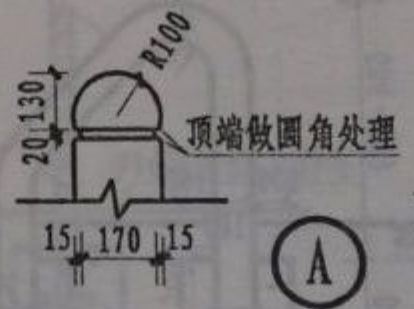


2

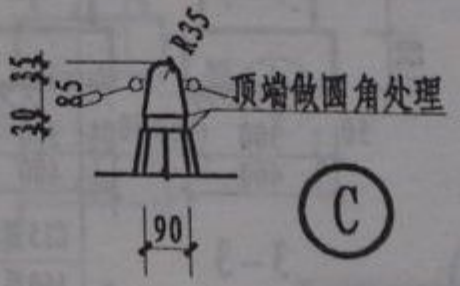




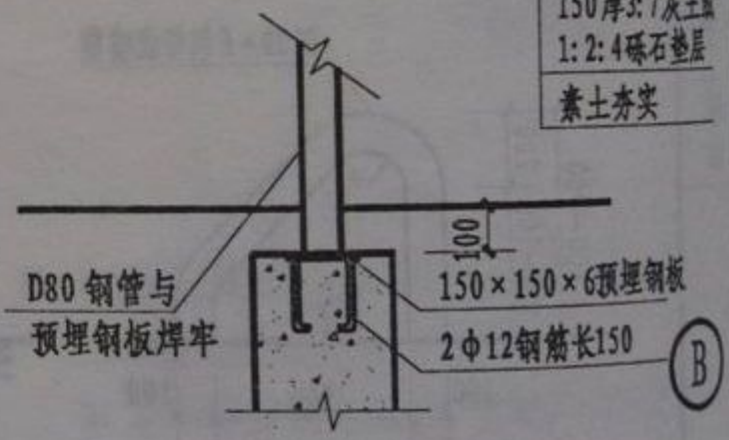
③



A



C



注：1、混凝土表面抹20厚1:2.5水泥砂浆，饰面涂料颜色按工程设计。

2、露明铁件刷防锈漆二道，调和漆二道，颜色按工程设计。钢材连接为焊接。

路障（三）

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