APPENDIX N - Key Constraints Map from Site Visit

1. Recommend flood defences are set within property boundaries. Only have LIDAR for this location, topo recommended.

2. Topographic survey data to be obtained to determine location of proposed defences

3. Proposed flood defence wall with sheet pile cut off. Alternative flood defence could be defences in property gardens

4. Pedestrian footpath wall to be surveyed to determine if sufficient height to afford flood protection

5. Possible alternate flood wall / embankment alignment

6. Topographic survey data to be obtained to determine location of proposed defences

7. Flood defences to be provided within individual property boundaries if possible. Site visit to properties recomended to assess potential alignment

8. Flood defences to be provided within individual property boundaries if possible. Site visit to properties recomended to assess potential alignment. Possible option to locally raise garden ground levels locally i.e. localised embankments.

9. Possible flood diversion channel. ACTION check to see if we have sufficient topo data in this area

10. CAUTION. Giant hogweed present in location, invasive species survey recommended

11. CAUTION. Overhead power lines.

12. Proposed flood wall with sheet pile cut off in alignment of existing boundary wall

13. Proposed pedestrian flood gate

14. Flood proof to existing building - HOW DO WE PROVIDE CUT OFF TO THIS BUILDING?

15. Tie into bridge abutment

16. ACTION. Bridge clack levels to be checked to determine parapets need raising / or bridge gates need providing

17. Existing access gates to residential properties - ACTION. HOW DO WE PROVIDE ACCESS TO THESE PROPERTIES? DO WE PROVIDE ACCESS STEPS OR FLOOD GATE? OR DO WE NOT PROVIDE ACESS?

18. Proposed flood wall with sheet pile cut off - Joint possible glass panels

19. CAUTION Possible contaminated land from historic gas works. Hydrocarbons possibly present

20. CAUTION. LP gas mains in pedestrian footpath / grass verge

21. Proposed new gate

22. Alternative flood defence option to construct embankment

23. Proposed flood defence wall with sheet pile cut off

24. Proposed tie in to existing wall

25. Proposed flood wall with sheet pile cut off

26. CAUTION. Construction working area and access constrained - HOW WILL WE CONSTRUCT A FLOOD WALL ADJACENT TO THE CHURCH?

27. Proposed tie into high ground

28. Proposed flood wall or embankment with sheet pile cut - IF WE ONLY PROVIDING A SMALL FLOOD EMBANKMENT (0.5M HIGH) WILL WE NEED A SHEET PILE CUT OFF?

29. CAUTION. Construction working area and access constrained - HOW WILL WE CONSTRUCT A FLOOD WALL ADJACENT TO THE CHURCH?

30. Proposed tie in to existing wall

31. Proposed flood wall or embankment with sheet pile cut - IF WE ONLY PROVIDING A SMALL FLOOD EMBANKMENT (0.5M HIGH) WILL WE NEED A SHEET PILE CUT OFF?

32. Proposed flood wall or embankment with sheet pile cut - IF WE ONLY PROVIDING A SMALL FLOOD EMBANKMENT (0.5M HIGH) WILL WE NEED A SHEET PILE CUT OFF?

33. Proposed flood wall with sheet pile cut off along line of existing landowner boundary.

34. Alternative option to construct an embankment riverside of landowner boundary

35. Proposed flood defence embankment to start from this location

36. CAUTION Scottish Water CSO outfall. Sheet pile cut off design will need to take account of SW assets.

37. CAUTION. Existing SEPA gauge

38. Tie in location to be determined

39. ACTION. Assess flood risk to theses properties and ocential need for flood defences.

40. Proposed pedestrian flood gate

41. Proposed flood embankment alignment

42. Existing access gates to residential properties - HOW DO WE PROVIDE ACCESS TO THESE PROPERTIES? DO WE PROVIDE ACCESS STEPS OR FLOOD GATE? OR DO WE NOT PROVIDE ACCESS?

43. Significant tree and vegetation loss during construction. Replacement landscape scheme to be implemented

44. Proposed pedestrian flood gate(s)

45. Existing residential property close to proposed flood defence alignment. Possible compulsory purchase or demolition and rebuild of adjacent building

46. Overhead power lines.

47. Construction working area along river corridor is tight.

48. CAUTION Scottish Water CSO outfall. Sheet pile cut off design will need to take account of SW assets.

49. Proposed pedestrian flood gate

50. Proposed flood wall with sheet pile cut off located on property boundary line

51. Possible temporary re-location of Fire Station accessories during construction

52. CAUTION Scottish Water storm crossing river, sheet pile cut off design will need to take account of SW assets.

53. Proposed pedestrian flood gate

54. CAUTION. Electric services adjacent to proposed flood wall

55. Flood gates in wall

56. Proposed flood wall to be on alignment of existing landowner boundary wall

57. CAUTION LP gas mains in pedestrian footpath / grass verge

58. Proposed flood wall with sheet pile cut off located at rear of pedestrian footpath

59. ACTION. River model bridge structure to be checked to determine if it is represented sufficiently in the model.

60. ACTION. IS BRIDGE LISTED?

61. Services crossing bridge

62. Proposed flood wall to be tie into existing wall

63. Proposed flood wall to be tie into existing wall

64. Proposed flood wall with sheet pile cut off located at rear of pedestrian footpath. CAUTION Street lighting columns and services adjacent

65. Proposed pedestrian flood gate

66. CAUTION Scottish Water CSO outfall. Alternative cut off design to be provided adjacent to outfall.

67. Proposed flood wall with sheet pile cut off

68. Pedestrian and vehicular flood gate initially suggested. Now it is proposed to just have 1 vehicle gate from discussions on the conference call 30.07.15

69. If suitable, existing wall to be raised in height to flood defence level with a sheet pile cut off installed in front of it. The sheet pile cut off will be connected to the flood defence wall with a RC slab.

70. Existing RC wall to be structurally assessed to determine if suitable for incorporation into proposed works.

71. Proposed flood defence alignment to follow existing landowner boundary

72. Existing access to footpath. Flood gate to be provided.

73. Proposed flood defence alignment to follow existing landowner boundary

74. Alternative flood defence option to construct embankment to west of drain. This will involve land take.

75. Existing drain to be re-aligned

76. If suitable, existing wall to be raised in height to flood defence level with a sheet pile cut off installed in front of it. The sheet pile cut off will be connected to the flood wall with RC slab.

77. Existing RC wall to be structurally assessed to determine if suitable for incorporation into proposed works.

78. It was decided on conference call 30.07.15 that the preferred option would be to use and embankment along this section, extending from CS 5 to CS 6 and then tying back into the flood wall.

79. approximately 140 metres of proposed embankment in this location.

80. Approx 40m of existing stone wall to be removed and replaced with new flood defence wall with sheet pile cut off.

81. Proposed flood wall to tie into Camp Road works

82. Proposed embankment to tie in with Camp Road works

83. Existing drain to be re-aligned

84. Existing embankment has steep slopes. Proposed embankment to have min slopes of 1 in 2. Possible land take required.

85. Proposed flood embankment to be on line of existing embankment. Existing embankment considered to be constructed of unsuitable material so proposed embankment to replace existing embankment.

86. Tie in location and detail to be confirmed

87. approximately 170 metres of proposed embankment in this location

The Ross

Comrie

Dalginross

Notes:

1) The freeboard is based on wall heights and not embankments. Where embankments are located, defence heights will need to be increased from those indicated on this plan.

2) The guidance used to determine the freeboard of the defences is "Fluvial Freeboard Guidance Note R&D Technical Report W187"

3) Defence heights at cross sections 5, 6 and 8 have been determined from ground levels on the property side of the existing concrete wall.

4) Defence heights between cross sections will be included once the additional topographical survey has been completed

Key:

- Defence heights at cross section locations
- Defence heights between cross sections
- 1.00m — 1 in 100, 100+ CC & 200 year defence heights
- Proposed wall defences
- Proposed embankment defences

REV	DATE	CHECKED BY	REMARKS
4	06.08.15	A. Williamson	For Comment

PERTH & KINROSS COUNCIL — The Environment Service

mouchel — building great relationships

Comrie and Dalginross Flood Study

Site Walk-over Plan - Key Comments

Date of Issue 06.08.15

Scale at A3: Not to Scale