WHAT IS CLAIMED IS:

1. A method for video decoding in a decoder, comprising:

decoding prediction information for a current block in a current coded picture that is a part of a coded video sequence, the prediction information indicating an intra block copy (IBC) prediction mode used for the current block, and an index to select a block vector predictor candidate from a block vector predictor candidate list for the current block;

determining whether coding of the current block in the IBC prediction mode is performed in an explicit mode or an implicit mode based on whether the prediction information indicates that a difference exists between a block vector and a corresponding block vector predictor, the coding of the current block being determined to be in the implicit mode when the prediction information indicates that the difference does not exist and being determined to be in the explicit mode when the difference does exist;

constructing the block vector predictor candidate list for the current block based on a sequence of candidates, the block vector predictor candidate list for~~having a first number of block vector predictor candidates in~~ the implicit mode is separate from the block vector predictor candidate list for ~~and having a second number of block vector predictor candidates in~~ the explicit mode;

selecting the block vector predictor candidate from the constructed block vector predictor candidate list based on the index indicated in the prediction information; and

reconstructing the current block according to the selected block vector predictor candidate.

2. The method of claim 1, further comprising:

determining whether a first block vector of a first spatial neighboring block of a plurality of spatial neighboring blocks of the current block is available;

inserting the first block vector into the block vector predictor candidate list in response to the determination that the first block vector of the first spatial neighboring block of the plurality of spatial neighboring blocks of the current block is available;

determining whether a second block vector of a second spatial neighboring block of the plurality of spatial neighboring blocks of the current block is available and whether the second block vector of the second spatial neighboring block is the same as the first block vector of the first spatial neighboring block; and

inserting the second block vector into the block vector predictor candidate list in response to the determination that the second block vector of the second spatial neighboring block of the plurality of spatial neighboring blocks of the current block is available and that the second block vector of the second spatial neighboring block is not the same as the first block vector of the first spatial neighboring block.

3. The method of claim 2, wherein the first spatial neighboring block of the current block is adjacent to a lower-left corner of the current block and a bottom side of the first spatial neighboring block is aligned to a bottom side of the current block, and the second spatial neighboring block of the current block is adjacent to an upper-right corner of the current block and a right side of the second spatial neighboring block is aligned to a right side of the current block.

4. The method of claim 2, wherein the first spatial neighboring block of the current block is adjacent to the lower-left corner of the current block and a top side of the first spatial neighboring block is aligned to the bottom side of the current block, and the second spatial neighboring block of the current block is adjacent to the upper-right corner of the current block and a left side of the second spatial neighboring block is aligned to the right side of the current block.

5. The method of claim 2, wherein the first spatial neighboring block of the current block is adjacent to a left side of the current block and the second spatial neighboring block of the current block is adjacent to a top side of the current block.

6. The method of claim 2, further comprising:

when a total number of the block vectors of the plurality of spatial neighboring blocks included in the block vector predictor candidate list is less than a maximum allowed number that is based on whether the difference does exist between the block vector and the corresponding block vector predictor;

selecting a third block vector of a previously coded block from a plurality of block vectors of previously coded blocks;

determining whether the selected third block vector is different from the plurality of spatial neighboring blocks included in the block vector predictor candidate list; and

inserting the selected third block vector into the block vector predictor candidate list in response to the determination that the selected third block vector is different from the plurality of spatial neighboring blocks included in the block vector predictor candidate list.

7. The method of claim 6, further comprising:

when a total number of the block vectors of the plurality of spatial neighboring blocks and the previously coded blocks included in the block vector predictor candidate list is less than the maximum allowed number and is above one;

selecting a plurality of block vector predictor candidates from the block vector predictor candidate list;

averaging the selected plurality of block vector predictor candidates to form at least one averaged block vector; and

inserting the at least one averaged block vector into the block vector predictor candidate list.

8. The method of claim 7, further comprising:

when a total number of the block vectors of the plurality of spatial neighboring blocks, the block vectors of the previously coded blocks, and the at least one average block vector included in the block vector predictor candidate list is less than the maximum allowed number,

inserting a default block vector into the block vector predictor candidate list.

9. The method of claim 8, wherein the default block vector is (0, 0).

10. The method of claim 1, wherein the selected block vector predictor candidate is not rounded when the difference does exist between the block vector and the corresponding block vector predictor for the current block.

11. The method of claim 1, further comprising:

when one of the block vector predictor candidates included in the block vector predictor candidate list is invalid,

performing a pruning process or clipping process to the one of the block vector predictor candidates.

12. The method of claim 11, wherein the one of the block vector predictor candidates is determined to be invalid when a reference block predicted by the one of the block vector predictor candidates is out of an allowed search range for intra block copy (IBC) prediction mode.

13. The method of claim 1, wherein the prediction information indicates whether the difference exists between the block vector and the corresponding block vector predictor based on a flag that indicates that the current block is not being coded in implicit mode.

14. An apparatus, comprising a processing circuitry configured to perform the method according to any one of claims 1 to 13.

15. A non-transitory computer-readable storage medium storing a program executable by at least one processor to perform the method according to any one of claims 1 to 13.