~~WHAT IS CLAIMED IS:~~CLAIMS:

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

decoding, from a coded video bitstream, a first syntax element signaled at a first coding level, the first syntax element indicating a maximum number of merge motion vector prediction (MVP) candidates, the first coding level being higher than a picture parameter set (PPS) level;

determining the maximum number of merge MVP candidates based on the first syntax element; and

reconstructing coding blocks associated with the first coding level based at least on the maximum number of merge MVP candidates;

the method further comprising:

decoding, from the coded video bitstream and based on a condition being satisfied, a second syntax element signaled at a second coding level, the second syntax element indicating a maximum number of merge candidates for one of a geometric merge mode, a subblock-based merge mode, and an intra block copy (IBC) merge mode;

wherein in response to that the one of the geometric merge mode, the subblock-based merge mode, and the IBC merge mode is the geometric merge mode:

the maximum number of merge candidates is a maximum number of geometric merge mode merge candidates;

the second syntax element indicates the maximum number of geometric merge mode merge candidates; and

the method further includes determining the maximum number of geometric merge mode merge candidates based on the second syntax element;

in response to that the one of the geometric merge mode, the subblock-based merge mode, and the IBC merge mode is the subblock-based merge mode:

the maximum number of merge candidates is a maximum number of subblock-based merge MVP candidates;

the second syntax element indicates the maximum number of subblock-based merge MVP candidates; and

the method further includes determining the maximum number of subblock-based merge MVP candidates based on the second syntax element;

in response to that the one of the geometric merge mode, the subblock-based merge mode, and the IBC merge mode is the IBC merge mode:

the maximum number of merge candidates is a maximum number of IBC merge block vector prediction (BVP) candidates;

the second syntax element indicates the maximum number of IBC merge BVP candidates; and

the method further includes determining the maximum number of IBC merge BVP candidates based on the second syntax element.

~~2. The method of claim 1, further comprising:~~

~~decoding, from the coded video bitstream, a second syntax element, a third syntax element, and a fourth syntax element signaled at the first coding level, the second syntax element indicating a maximum number of geometric merge mode merge candidates, the third syntax element indicating a maximum number of subblock-based merge MVP candidates, and the fourth syntax element indicating a maximum number of intra block copy (IBC) merge block vector prediction (BVP) candidates; and~~

~~determining (i) the maximum number of geometric merge mode merge candidates based on the second syntax element, (ii) the maximum number of subblock-based merge MVP candidates based on the third syntax element, and (iii) the maximum number of IBC merge BVP candidates based on the fourth syntax element.~~

~~3.~~2.The method of claim 1, wherein the first coding level is a sequence level and the first syntax element is signaled in a sequence parameter set (SPS).

~~4. The method of claim 1, further comprising:~~

~~decoding, from the coded video bitstream and based on a condition being satisfied, a second syntax element signaled at a second coding level, the second syntax element indicating a maximum number of merge candidates for one of a geometric merge mode, a subblock-based merge mode, and an intra block copy (IBC) merge mode.~~

~~5.~~3.The method of claim ~~4~~1, wherein

the one of the geometric merge mode, the subblock-based merge mode, and the IBC merge mode is the geometric merge mode;

~~the maximum number of merge candidates is a maximum number of geometric merge mode merge candidates;~~

~~the second syntax element indicates the maximum number of geometric merge mode merge candidates;~~

the condition is the geometric merge mode being enabled at the second coding level and the maximum number of merge MVP candidates being larger than or equal to 3~~; and~~

~~the method further includes determining the maximum number of geometric merge mode merge candidates based on the second syntax element~~.

~~6.~~4.The method of claim 4~~1~~, wherein

the one of the geometric merge mode, the subblock-based merge mode, and the IBC merge mode is the subblock-based merge mode;

~~the maximum number of merge candidates is a maximum number of subblock-based merge MVP candidates;~~

~~the second syntax element indicates the maximum number of subblock-based merge MVP candidates;~~

the condition is an affine mode being enabled at the second coding level~~; and~~

~~the method further includes determining the maximum number of subblock-based merge MVP candidates based on the second syntax element~~.

~~7.~~5.The method of claim 4~~1~~, wherein

the one of the geometric merge mode, the subblock-based merge mode, and the IBC merge mode is the IBC merge mode;

~~the maximum number of merge candidates is a maximum number of IBC merge block vector prediction (BVP) candidates;~~

~~the second syntax element indicates the maximum number of IBC merge BVP candidates;~~

the condition is the IBC merge mode being enabled at the second coding level~~; and~~

~~the method further includes determining the maximum number of IBC merge BVP candidates based on the second syntax element~~.

~~8.~~6.The method of claim ~~4~~1, wherein the first coding level and the second coding level are a sequence level.

~~9.~~7.The method of claim ~~6~~4, wherein the second syntax element is modified at a coding level that is lower than the second coding level.

~~10.~~8. The method of claim ~~9~~7, wherein the first coding level and the second coding level are a sequence level, and the coding level that is lower than the second coding level is a picture level.

~~11.~~9. An apparatus for video decoding, comprising processing circuitry configured to:

decode, from a coded video bitstream, a first syntax element signaled at a first coding level, the first syntax element indicating a maximum number of merge motion vector prediction (MVP) candidates, the first coding level being higher than a picture parameter set (PPS) level;

determine the maximum number of merge MVP candidates based on the first syntax element; and

reconstruct coding blocks associated with the first coding level based at least on the maximum number of merge MVP candidates;

wherein the processing circuitry is further configured to:

decode, from the coded video bitstream and based on a condition being satisfied, a second syntax element signaled at a second coding level, the second syntax element indicating a maximum number of merge candidates for one of a geometric merge mode, a subblock-based merge mode, and an intra block copy (IBC) merge mode;

wherein in response to that the one of the geometric merge mode, the subblock-based merge mode, and the IBC merge mode is the geometric merge mode:

the maximum number of merge candidates is a maximum number of geometric merge mode merge candidates;

the second syntax element indicates the maximum number of geometric merge mode merge candidates; and

the method further includes determining the maximum number of geometric merge mode merge candidates based on the second syntax element;

in response to that the one of the geometric merge mode, the subblock-based merge mode, and the IBC merge mode is the subblock-based merge mode:

the maximum number of merge candidates is a maximum number of subblock-based merge MVP candidates;

the second syntax element indicates the maximum number of subblock-based merge MVP candidates; and

the method further includes determining the maximum number of subblock-based merge MVP candidates based on the second syntax element;

in response to that the one of the geometric merge mode, the subblock-based merge mode, and the IBC merge mode is the IBC merge mode:

the maximum number of merge candidates is a maximum number of IBC merge block vector prediction (BVP) candidates;

the second syntax element indicates the maximum number of IBC merge BVP candidates; and

the method further includes determining the maximum number of IBC merge BVP candidates based on the second syntax element.

~~12. The apparatus of claim 11, wherein the processing circuitry is further configured to:~~

~~decode, from the coded video bitstream, a second syntax element, a third syntax element, and a fourth syntax element signaled at the first coding level, the second syntax element indicating a maximum number of geometric merge mode merge candidates, the third syntax element indicating a maximum number of subblock-based merge MVP candidates, and the fourth syntax element indicating a maximum number of intra block copy (IBC) merge block vector prediction (BVP) candidates; and~~

~~determine (i) the maximum number of geometric merge mode merge candidates based on the second syntax element, (ii) the maximum number of subblock-based merge MVP candidates based on the third syntax element, and (iii) the maximum number of IBC merge BVP candidates based on the fourth syntax element.~~

~~13.~~10. The apparatus of claim ~~11~~9, wherein the first coding level is a sequence level and the first syntax element is signaled in a sequence parameter set (SPS).

~~14. The apparatus of claim 11, wherein the processing circuitry is further configured to:~~

~~decode, from the coded video bitstream and based on a condition being satisfied, a second syntax element signaled at a second coding level, the second syntax element indicating a maximum number of merge candidates for one of a geometric merge mode, a subblock-based merge mode, and an intra block copy (IBC) merge mode.~~

~~15.~~11. The apparatus of claim ~~14~~9, wherein

the one of the geometric merge mode, the subblock-based merge mode, and the IBC merge mode is the geometric merge mode;

~~the maximum number of merge candidates is a maximum number of geometric merge mode merge candidates;~~

~~the second syntax element indicates the maximum number of geometric merge mode merge candidates;~~

the condition is the geometric merge mode being enabled at the second coding level and the maximum number of merge MVP candidates being larger than or equal to 3~~; and~~

~~the processing circuitry is further configured to determine the maximum number of geometric merge mode merge candidates based on the second syntax element~~.

~~16.~~12. The apparatus of claim ~~14~~9, wherein

the one of the geometric merge mode, the subblock-based merge mode, and the IBC merge mode is the subblock-based merge mode;

~~the maximum number of merge candidates is a maximum number of subblock-based merge MVP candidates;~~

~~the second syntax element indicates the maximum number of subblock-based merge MVP candidates;~~

the condition is an affine mode being enabled at the second coding level~~; and~~

~~the processing circuitry is further configured to determine the maximum number of subblock-based merge MVP candidates based on the second syntax element~~.

~~17.~~13. The apparatus of claim ~~14~~9, wherein

the one of the geometric merge mode, the subblock-based merge mode, and the IBC merge mode is the IBC merge mode;

~~the maximum number of merge candidates is a maximum number of IBC merge block vector prediction (BVP) candidates;~~

~~the second syntax element indicates the maximum number of IBC merge BVP candidates;~~

the condition is the IBC merge mode being enabled at the second coding level~~; and~~

~~the processing circuitry is further configured to determine the maximum number of IBC merge BVP candidates based on the second syntax element~~.

~~18.~~14. The apparatus of claim ~~14~~9, wherein the first coding level and the second coding level are a sequence level.

~~19.~~15. The apparatus of claim ~~16~~12, wherein the second syntax element is modified at a coding level that is lower than the second coding level.

~~20.~~16. A non-transitory computer-readable medium storing instructions which when executed by a computer for video decoding cause the computer to perform:

decoding, from a coded video bitstream, a first syntax element signaled at a first coding level, the first syntax element indicating a maximum number of merge motion vector prediction (MVP) candidates, the first coding level being higher than a picture parameter set (PPS) level;

determining the maximum number of merge MVP candidates based on the first syntax element; and

reconstructing coding blocks associated with the first coding level based at least on the maximum number of merge MVP candidates;

decoding, from the coded video bitstream and based on a condition being satisfied, a second syntax element signaled at a second coding level, the second syntax element indicating a maximum number of merge candidates for one of a geometric merge mode, a subblock-based merge mode, and an intra block copy (IBC) merge mode;

wherein in response to that the one of the geometric merge mode, the subblock-based merge mode, and the IBC merge mode is the geometric merge mode:

the maximum number of merge candidates is a maximum number of geometric merge mode merge candidates;

the second syntax element indicates the maximum number of geometric merge mode merge candidates; and

the method further includes determining the maximum number of geometric merge mode merge candidates based on the second syntax element;

in response to that the one of the geometric merge mode, the subblock-based merge mode, and the IBC merge mode is the subblock-based merge mode:

the maximum number of merge candidates is a maximum number of subblock-based merge MVP candidates;

the second syntax element indicates the maximum number of subblock-based merge MVP candidates; and

the method further includes determining the maximum number of subblock-based merge MVP candidates based on the second syntax element;

in response to that the one of the geometric merge mode, the subblock-based merge mode, and the IBC merge mode is the IBC merge mode:

the maximum number of merge candidates is a maximum number of IBC merge block vector prediction (BVP) candidates;

the second syntax element indicates the maximum number of IBC merge BVP candidates; and

the method further includes determining the maximum number of IBC merge BVP candidates based on the second syntax element.