

# Supplementary File to “Texture Enhanced Image Denoising via Gradient Histogram Preservation”

In this document, we present more experimental results, which are not included in the main paper due to the limited space.

In the following, we present the denoising results of all the 10 test images (refer to Fig. 1(b) below) by the competing methods when the noise level is  $\sigma=30$ . In addition, we also use one of the CVPR2013 webpage logo images (refer to Fig. 1(a) below) to test our GHP algorithm.

The denoised images by the competing methods (noise level  $\sigma=30$ ) saved in the “\*.tif” format are also attached in the supplementary file. Take image 1 for example, the original image, noisy image and the denoised images by SAPCA-BM3D, LSSC, CSR and the proposed GHP are labeled as 1\_original.tif, 1\_noisy.tif, 1\_sapca\_bm3d.tif, 1\_lssc.tif, 1\_csr.tif, and 1\_ghp.tif, respectively.

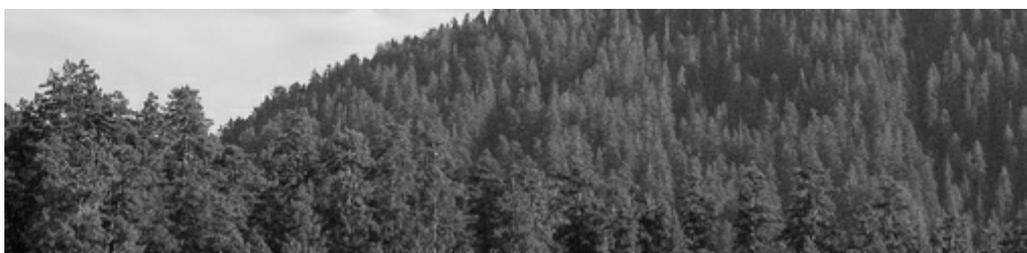
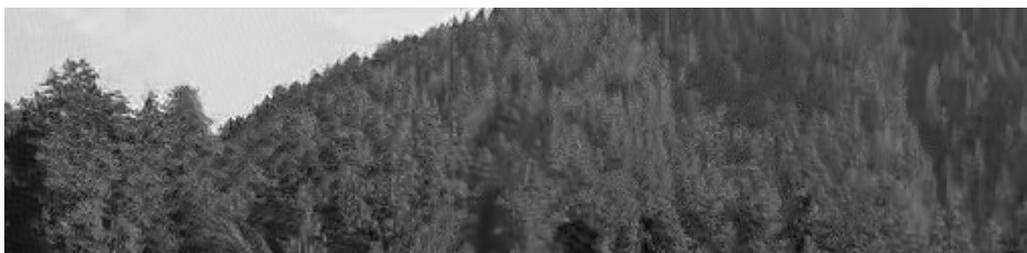
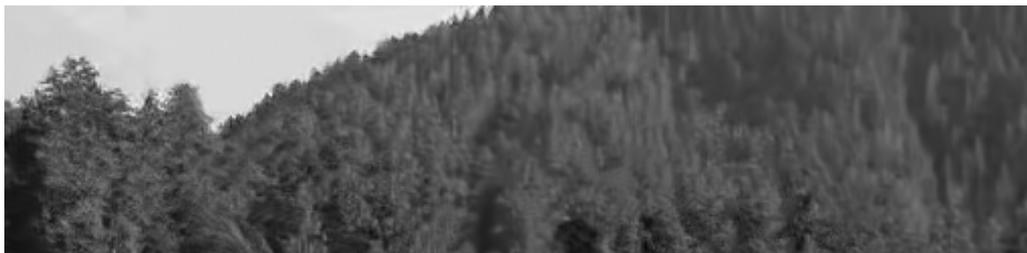
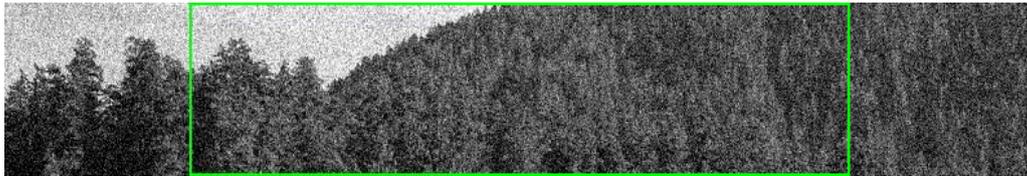


(a)

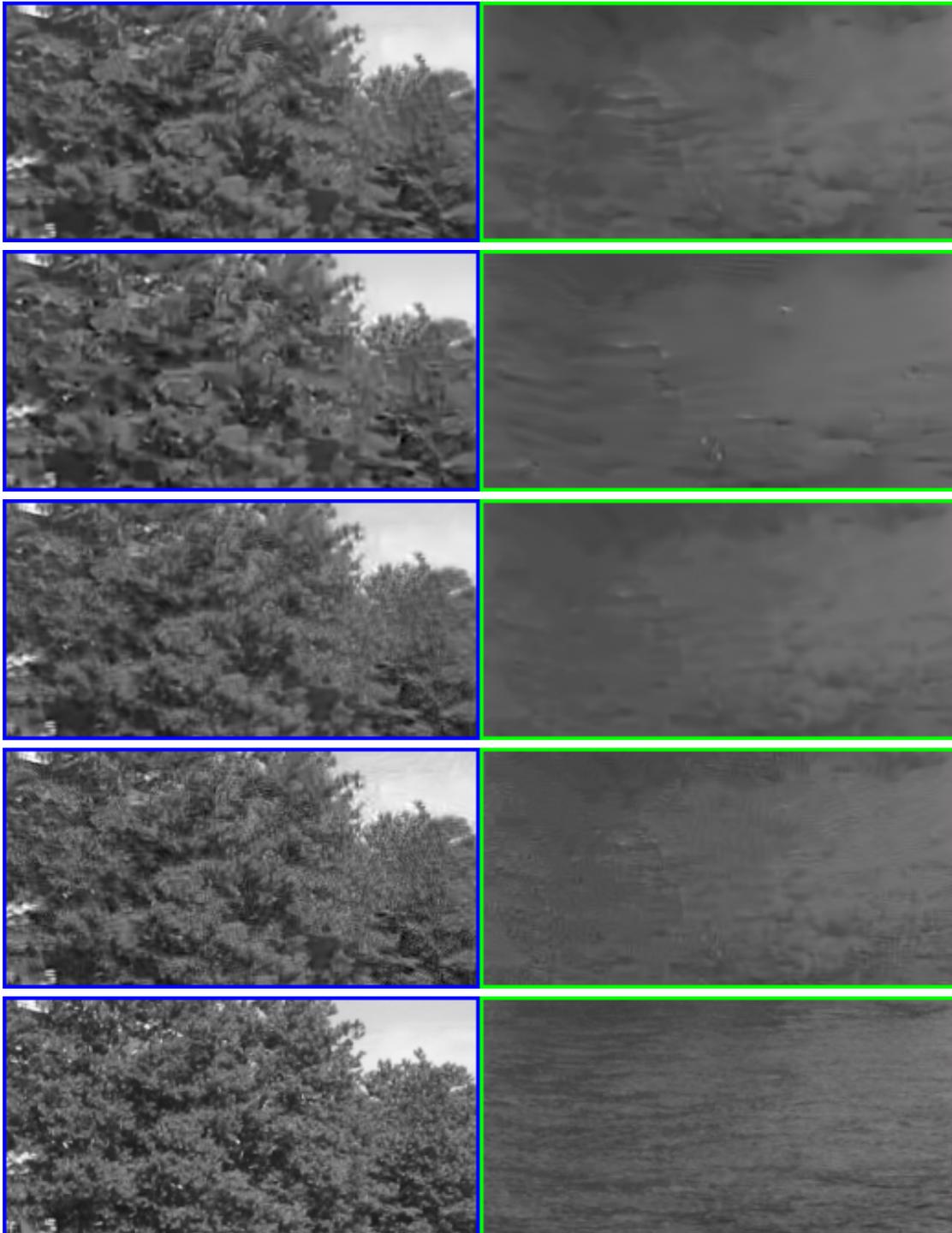
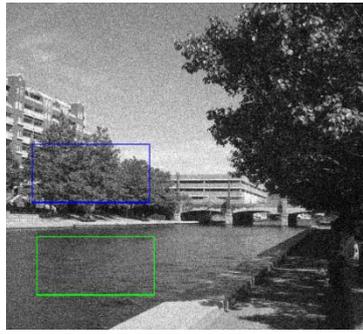


(b)

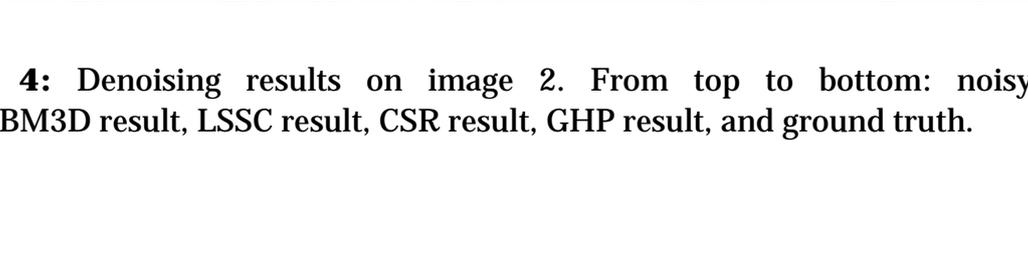
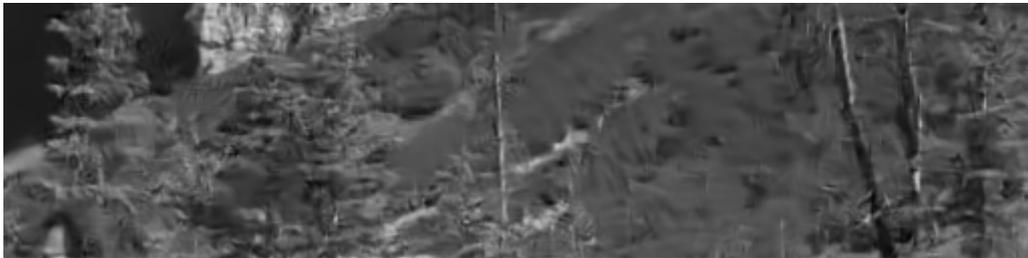
**Figure 1:** (a) One CVPR2013 webpage logo image. (b) From left to right and top to bottom: the 10 test images used in the main paper, labeling from 1 to 10.



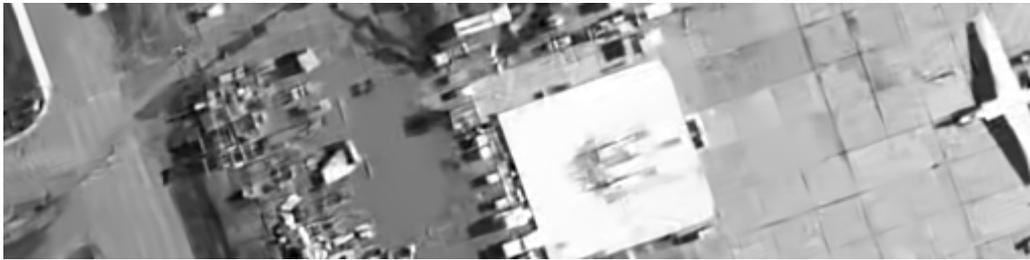
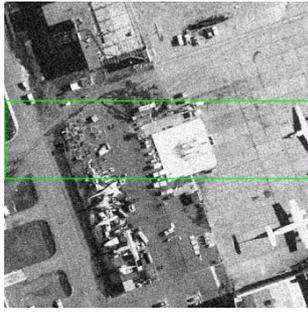
**Figure 2:** Denoising results on the CVPR2013 webpage logo image. From top to bottom: noisy image, SAPCA-BM3D result, LSSC result, CSR result, GHP result, and ground truth.



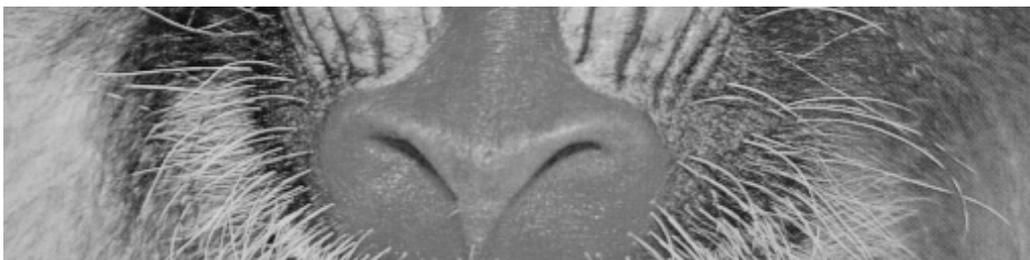
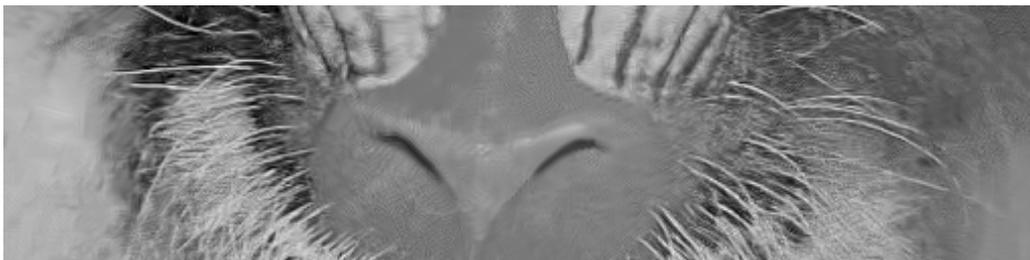
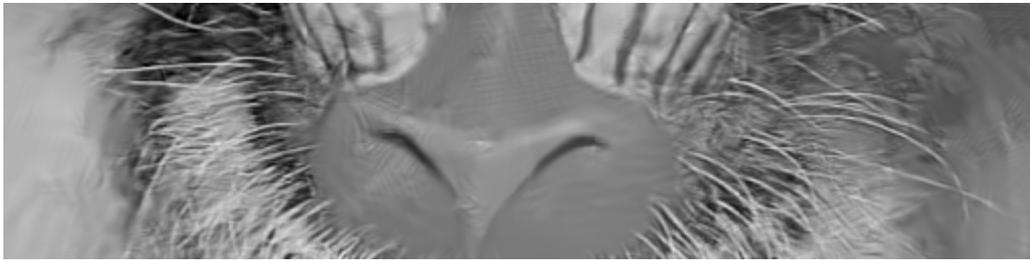
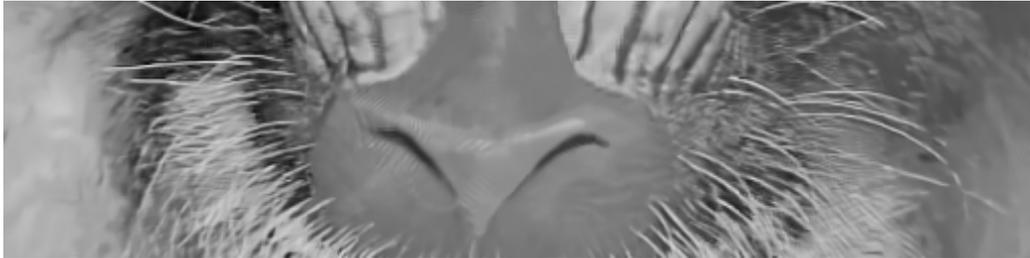
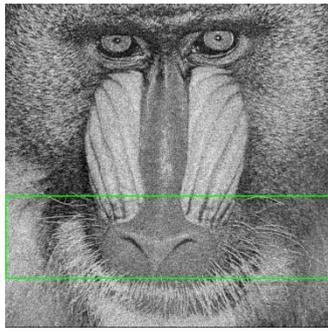
**Figure 3:** Denoising results on image 1. From top to bottom: noisy image, SAPCA-BM3D result, LSSC result, CSR result, GHP result, and ground truth.



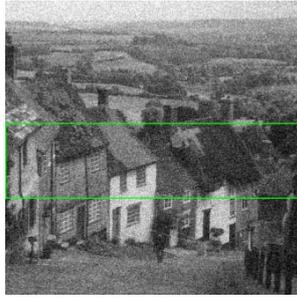
**Figure 4:** Denoising results on image 2. From top to bottom: noisy image, SAPCA-BM3D result, LSSC result, CSR result, GHP result, and ground truth.



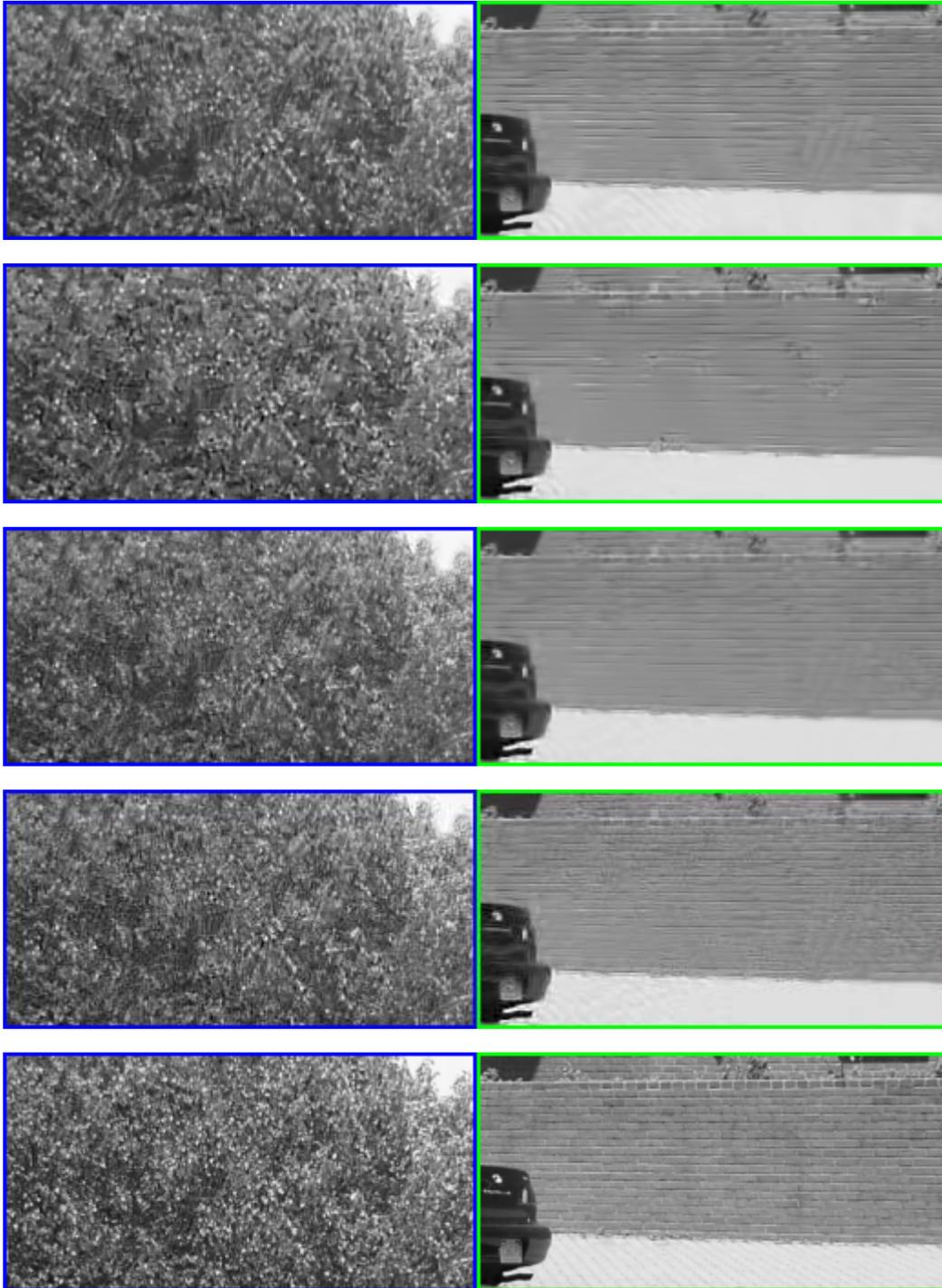
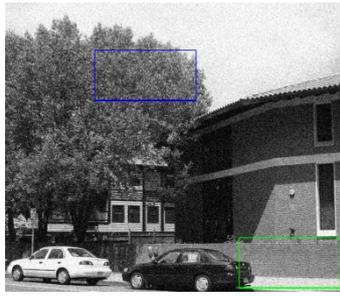
**Figure 5:** Denoising results on image 3. From top to bottom: noisy image, SAPCA-BM3D result, LSSC result, CSR result, GHP result, and ground truth.



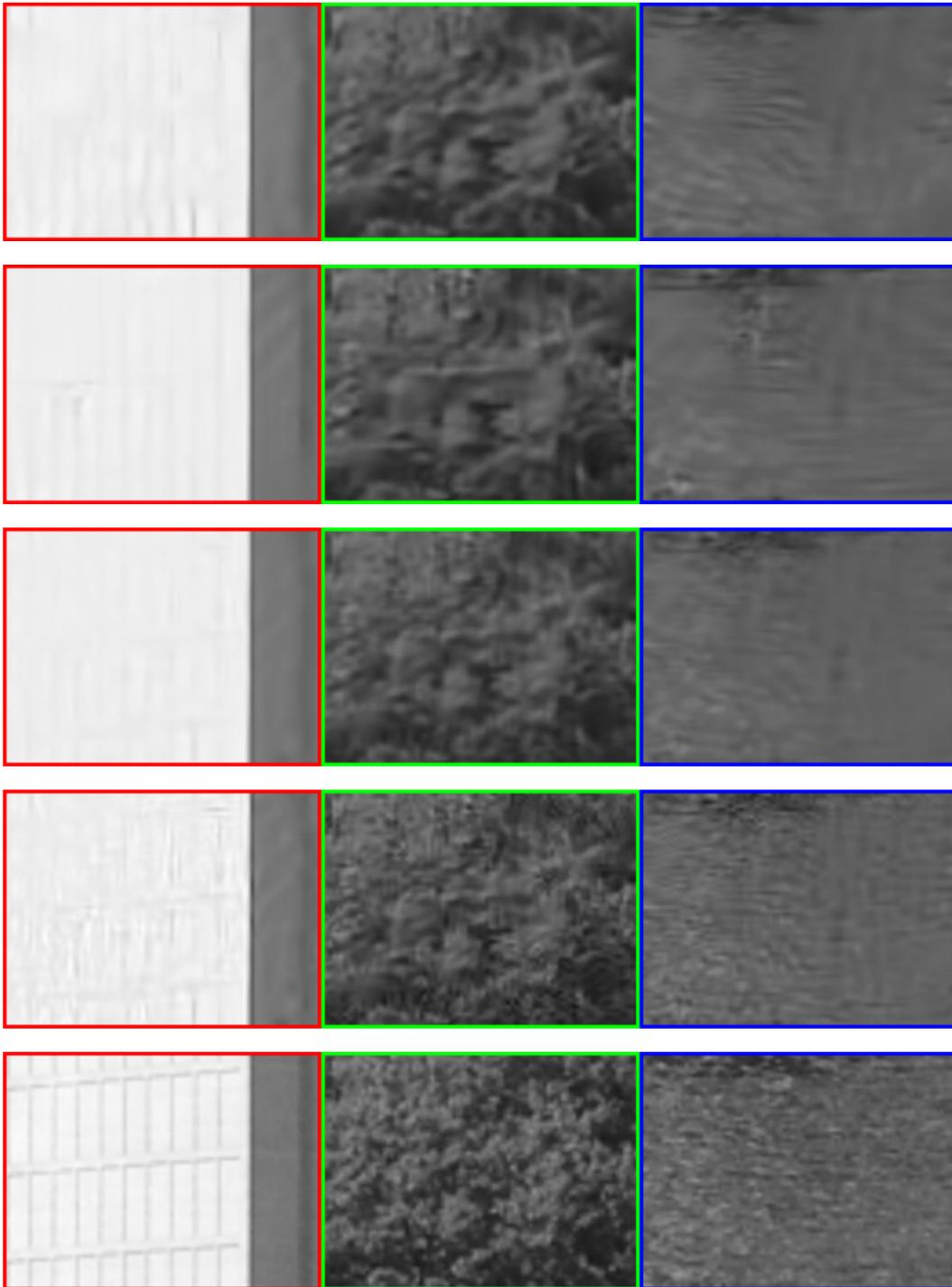
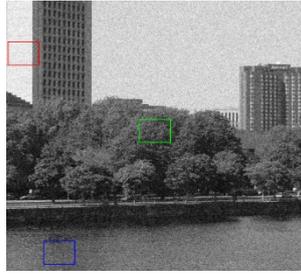
**Figure 6:** Denoising results on image 4. From top to bottom: noisy image, SAPCA-BM3D result, LSSC result, CSR result, GHP result, and ground truth.



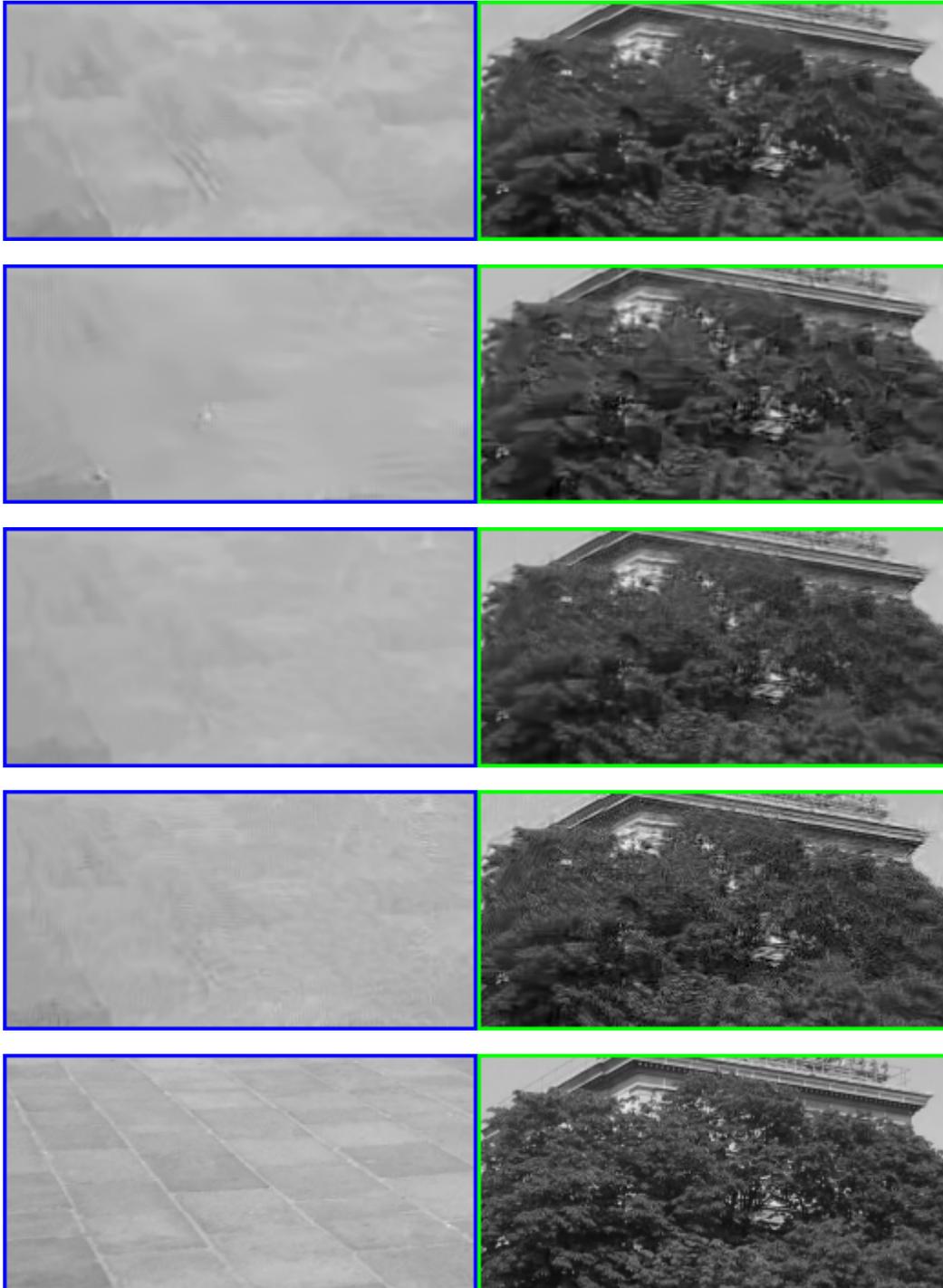
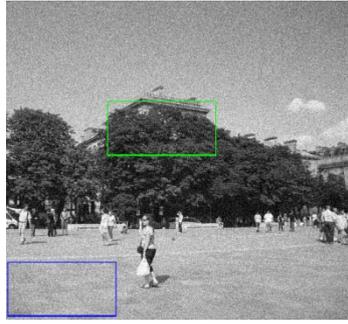
**Figure 7:** Denoising results on image 5. From top to bottom: noisy image, SAPCA-BM3D result, LSSC result, CSR result, GHP result, and ground truth.



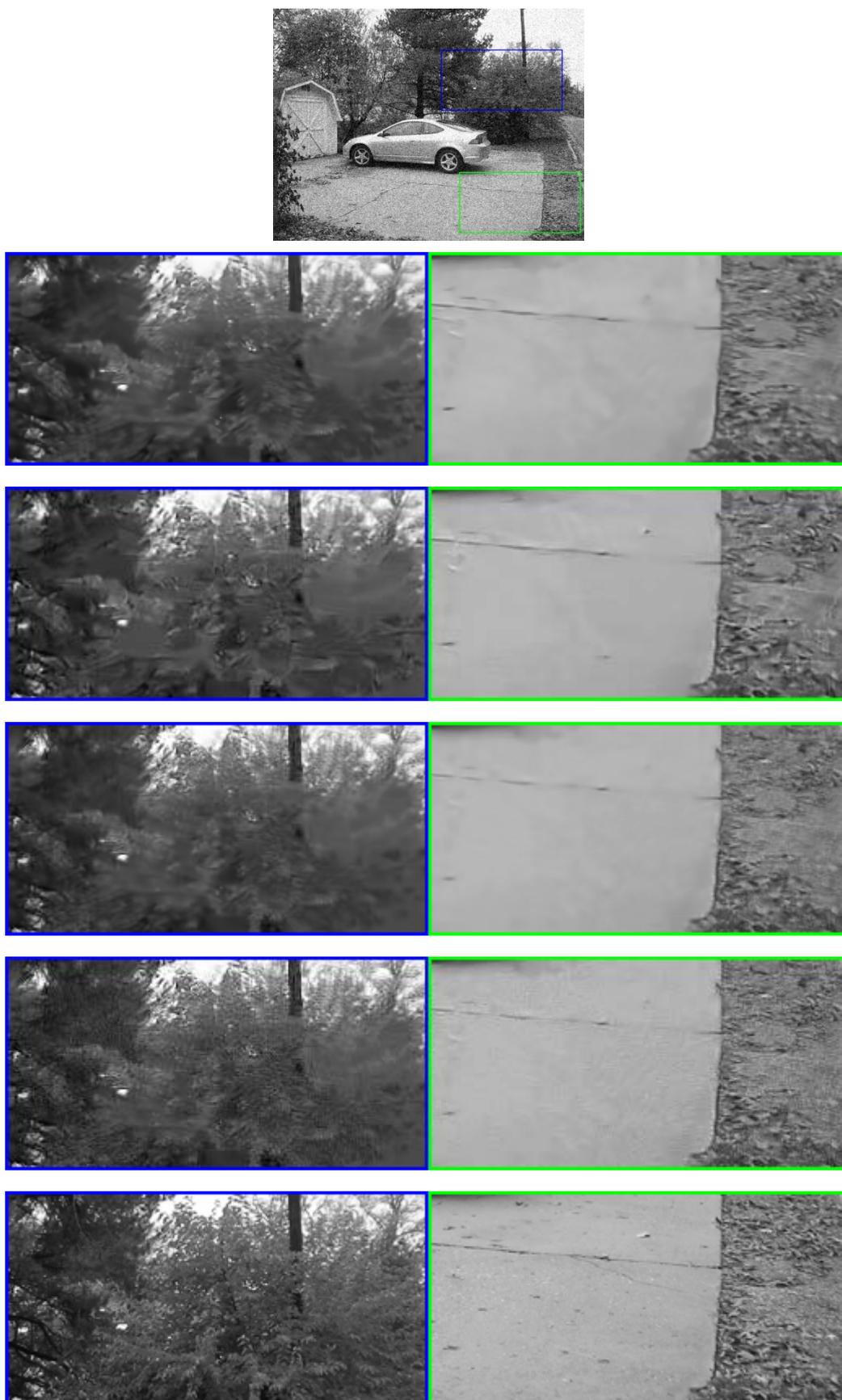
**Figure 8:** Denoising results on image 6. From top to bottom: noisy image, SAPCA-BM3D result, LSSC result, CSR result, GHP result, and ground truth.



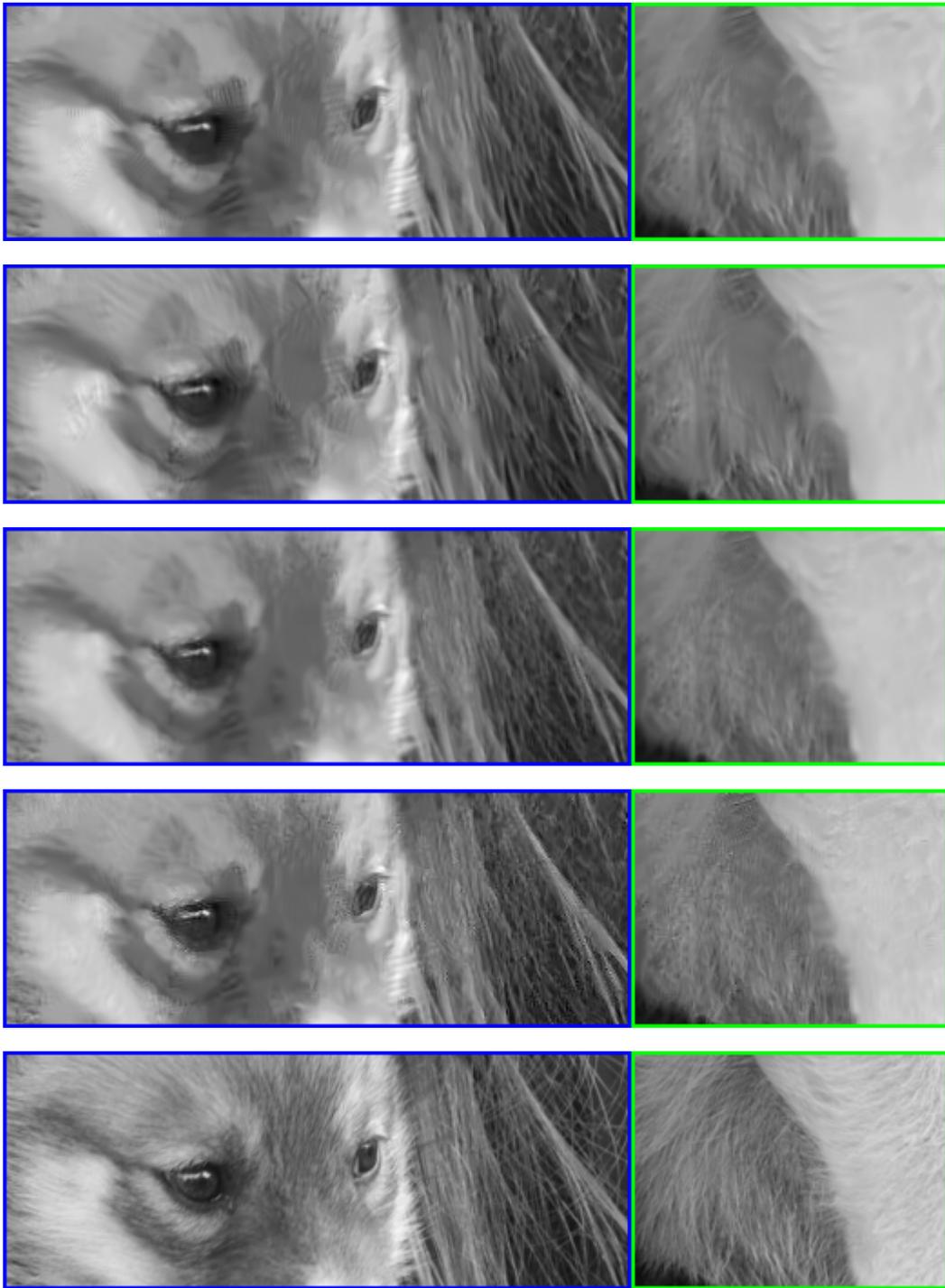
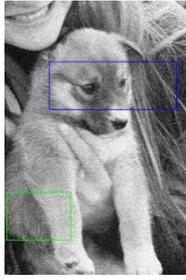
**Figure 9:** Denoising results on image 7. From top to bottom: noisy image, SAPCA-BM3D result, LSSC result, CSR result, GHP result, and ground truth.



**Figure 10:** Denoising results on image 8. From top to bottom: noisy image, SAPCA-BM3D result, LSSC result, CSR result, GHP result, and ground truth.



**Figure 11:** Denoising results on image 9. From top to bottom: noisy image, SAPCA-BM3D result, LSSC result, CSR result, GHP result, and ground truth.



**Figure 12:** Denoising results on image 10. From top to bottom: noisy image, SAPCA-BM3D result, LSSC result, CSR result, GHP result, and ground truth.