

Table 1. Performance Comparison Across CLIP Architectures and Post-processing Methods. Comparative evaluation of our approach against state-of-the-art methods (Trident and CLIPer) across different CLIP architectures (CLIP-ViT-B/16, CLIP-ViT-L/14, OpenCLIP-ViT-H/14) with and without post-processing. Best results are shown in bold, second-best results are underlined. Note: CorrCLIP is not included in the comparison as its implementation is not publicly available.

Method	Post-processing	With background			Without background					Avg.
		VOC21	Context60	COCO-Obj	VOC20	City	Context59	ADE	Stuff	
Without Post-processing										
CLIP-ViT-B/16										
CLIPer(Sun et al., 2024a)	NO	60.1	34.8	36.0	84.0	-	38.5	19.8	25.3	-
Trident(Shi et al., 2024)	NO	64.5	37.2	39.5	83.7	40.4	40.9	20.9	27.6	44.5
Ours	NO	66.1	37.7	39.4	85.4	42.8	41.2	21.0	27.3	44.8
CLIP-ViT-L/14										
CLIPer(Sun et al., 2024a)	NO	61.2	34.3	39.6	88.2	-	39.8	21.8	25.8	-
Trident(Shi et al., 2024)	NO	61.4	36.4	40.2	84.8	40.4	39.8	23.2	26.4	42.5
Ours	NO	67.0	37.3	40.2	85.5	42.7	41.0	22.9	27.1	45.5
OpenCLIP-ViT-H/14										
CLIPer(Sun et al., 2024a)	NO	58.0	34.1	39.2	85.8	-	36.9	22.1	25.2	-
Trident(Shi et al., 2024)	NO	68.6	38.2	40.8	87.7	43.6	42.6	25.4	28.0	46.6
Ours	NO	69.1	39.0	40.0	86.9	43.0	42.8	24.5	28.1	46.7
With Post-processing										
CLIP-ViT-B/16										
CLIPer(Sun et al., 2024a)	YES	65.9	37.6	39.0	85.2	-	41.7	21.2	27.5	-
Trident(Shi et al., 2024)	YES	67.1	38.6	41.1	84.5	42.9	42.2	21.9	28.3	45.8
Ours	YES	70.4	39.8	40.8	86.2	46.4	43.6	22.2	28.7	47.3
CLIP-ViT-L/14										
CLIPer(Sun et al., 2024a)	YES	69.8	38.0	43.3	90.0	-	43.6	24.4	28.7	-
Trident(Shi et al., 2024)	YES	62.6	37.3	40.5	85.5	43.0	40.9	24.0	27.1	44.3
Ours	YES	71.3	39.6	40.7	86.5	46.4	43.3	23.8	28.5	47.5
OpenCLIP-ViT-H/14										
CLIPer(Sun et al., 2024a)	YES	88.9	39.3	42.8	88.8	-	43.2	24.4	28.3	-
Trident(Shi et al., 2024)	YES	70.8	40.1	42.2	88.7	47.6	44.3	26.7	28.6	48.6
Ours	YES	71.7	40.5	41.4	87.6	47.0	44.8	25.6	28.8	48.4

Table 2. Ablation Study on Different VFM Feature Extractors. We compare four DINO variants: ViT-Base with patch sizes of 8 (B8) and 16 (B16), and ViT-Small with patch sizes of 8 (S8) and 16 (S16); two DINOv2 variants: ViT-B/14 and ViT-S/14; and the ViT-B/16 architecture from SAM. Results demonstrate that DINOv2 ViT-S/14 achieves the best performance on the VOC20 dataset, while DINO ViT-B/8 outperforms all other architectures across the remaining datasets.

Model	Dataset							
	VOC21	Context-60	COCO	VOC20	Cityscapes	Context-59	ADE20K	COCO-Stuff
DINO								
ViT-B/8	70.41	39.82	40.80	86.18	46.41	43.56	22.24	28.72
ViT-B/16	69.26	39.67	40.46	85.99	45.56	42.47	22.11	27.88
ViT-S/8	69.96	39.49	40.63	86.02	45.94	42.79	22.17	28.24
ViT-S/16	68.91	39.12	40.27	85.88	45.23	42.01	21.96	27.42
DINOv2								
ViT-S/14	68.26	39.13	40.66	86.61	44.33	43.09	21.78	28.41
ViT-B/14	68.17	39.03	40.57	86.50	44.59	43.07	21.87	28.48
SAM								
ViT-B/16	68.36	38.0	38.84	84.33	43.64	40.68	21.16	27.37