

NOISE AND VIBRATION TECHNICAL INFORMATION

APPENDIX D



**APPROVED PROJECT
– ACTIVITY NML
EXCEEDANCES**

Table B1-1 Approved Project - Enabling Works – All Works

Receiver		NML					LAeq(15 minute) Typical Range		Worst Case LAmax	Total Number of Receivers in Catchment	Number of Receivers per NML assessment category ¹															
NCA	Type ⁴	Day	Day OOH	Evening	Night	Sleep Dist	Lower ²	Upper ³			Day	Day OOH			Evening			Night			Sleep Disturbance					
NCA25	COM	70	70	n/a	n/a	n/a	62	To 89	>90	46	37	5	4	-	46	-	-	-	46	-	-	-	NA	-	-	-
NCA25	IND	75	75	n/a	n/a	n/a	33	To 65	70	1	1	-	-	-	1	-	-	-	1	-	-	-	1	-	-	-
NCA25	OED	55	n/a	n/a	n/a	n/a	56	To 74	79	5	-	1	4	-	5	-	-	-	5	-	-	-	NA	-	-	-
NCA25	OOP	60	60	60	n/a	n/a	39	To 73	78	1	-	-	1	-	1	-	-	-	NA	-	-	-	NA	-	-	-
NCA25	OPW	55	55	n/a	n/a	n/a	51	To 63	68	2	-	2	-	-	-	2	-	-	2	-	-	-	NA	-	-	-
NCA25	OTH	50	50	50	50	n/a	32	To 54	58	1	-	1	-	-	1	-	-	-	1	-	-	-	NA	-	-	-
NCA25	RES	68	63	61	57	67	64	To >90	>90	169	122	37	8	2	169	-	-	-	169	-	-	-	169	-	-	-
NCA26A	COM	70	70	n/a	n/a	n/a	71	To 80	85	91	64	26	1	-	91	-	-	-	91	-	-	-	NA	-	-	-
NCA26A	IND	75	75	n/a	n/a	n/a	65	To 80	84	6	3	3	-	-	6	-	-	-	6	-	-	-	6	-	-	-
NCA26A	OED	55	n/a	n/a	n/a	n/a	52	To 66	71	1	-	-	1	-	1	-	-	-	1	-	-	-	NA	-	-	-
NCA26A	OME	55	55	55	55	55	61	To 75	80	1	-	-	1	-	1	-	-	-	NA	-	-	-	NA	-	-	-
NCA26A	OOA	65	65	65	n/a	n/a	58	To 76	80	3	-	2	1	-	3	-	-	-	3	-	-	-	NA	-	-	-
NCA26A	OOP	60	60	60	n/a	n/a	57	To 75	80	1	-	-	1	-	-	1	-	-	NA	-	-	-	NA	-	-	-
NCA26A	OPW	55	55	n/a	n/a	n/a	55	To 75	80	4	1	1	1	1	2	2	-	-	4	-	-	-	NA	-	-	-
NCA26A	RES	66	61	58	50	60	65	To 74	79	115	103	12	-	-	115	-	-	-	115	-	-	-	115	-	-	-
NCA26B	COM	70	70	n/a	n/a	n/a	62	To 74	79	2	-	2	-	-	2	-	-	-	2	-	-	-	NA	-	-	-
NCA26B	RES	71	66	67	59	71	62	To 74	78	1	-	1	-	-	1	-	-	-	1	-	-	-	1	-	-	-

Note 1: Based on Typical Upper LAeq(15 min) noise level for Day, Day OOH, Evening and Night assessments and Worst Case LAmax noise level for Sleep Disturbance Assessment. Cell colour corresponds to the following exceedance categories:

- Green** represents the number of receivers compliant with the respective NML.
- Yellow** represents the number of receivers with NML exceedances of 1 to 10 dB.
- Orange** represents the number of receivers with NML exceedances of 11 to 20 dB.
- Red** represents the number of receivers with NML exceedances of greater than 20 dB.

Note 2: Representative of the ongoing level of disturbance experienced by the surrounding sensitive receivers, which caters for the likely variability in the intensity of the works and utilisation rate of the plant and equipment.

Note 3: Representative of the typical worst case level of disturbance experienced by the surrounding sensitive receivers, which caters for likely worst case scenario of the noise intensive equipment located at the closest construction boundary to the receiver with all equipment running.

Table B1-2 Approved Project - Enabling Works – Support Works Only

Receiver		NML					LAeq(15 minute) Typical Range			Worst Case LAmax	Total Number of Receivers in Catchment	Number of Receivers per NML assessment category¹															
NCA	Type⁴	Day	Day OOH	Evening	Night	Sleep Dist	Lower²		Upper³			Day	Day OOH			Evening			Night			Sleep Disturbance					
NCA25	COM	70	70	n/a	n/a	n/a	58	To	82	84	46	42	3	1	-	46	-	-	-	46	-	-	-	NA	-	-	-
NCA25	IND	75	75	n/a	n/a	n/a	<30	To	58	60	1	1	-	-	-	1	-	-	-	1	-	-	-	1	-	-	-
NCA25	OED	55	n/a	n/a	n/a	n/a	52	To	67	70	5	1	2	2	-	5	-	-	-	5	-	-	-	NA	-	-	-
NCA25	OOP	60	60	60	n/a	n/a	35	To	66	68	1	-	1	-	-	1	-	-	-	NA	-	-	-	NA	-	-	-
NCA25	OPW	55	55	n/a	n/a	n/a	47	To	56	59	2	1	1	-	-	2	-	-	-	2	-	-	-	NA	-	-	-
NCA25	OTH	50	50	50	50	n/a	<30	To	47	49	1	1	-	-	-	1	-	-	-	1	-	-	-	NA	-	-	-
NCA25	RES	68	63	61	57	67	60	To	>90	>90	169	147	19	2	1	169	-	-	-	169	-	-	-	169	-	-	-
NCA26A	COM	70	70	n/a	n/a	n/a	67	To	73	76	91	89	2	-	-	91	-	-	-	91	-	-	-	NA	-	-	-
NCA26A	IND	75	75	n/a	n/a	n/a	61	To	73	75	6	6	-	-	-	6	-	-	-	6	-	-	-	6	-	-	-
NCA26A	OED	55	n/a	n/a	n/a	n/a	48	To	59	61	1	-	1	-	-	1	-	-	-	1	-	-	-	NA	-	-	-
NCA26A	OME	55	55	55	55	55	57	To	68	70	1	-	-	1	-	1	-	-	-	NA	-	-	-	NA	-	-	-
NCA26A	OOA	65	65	65	n/a	n/a	54	To	69	71	3	2	1	-	-	3	-	-	-	3	-	-	-	NA	-	-	-
NCA26A	OOP	60	60	60	n/a	n/a	53	To	68	70	1	-	1	-	-	1	-	-	-	NA	-	-	-	NA	-	-	-
NCA26A	OPW	55	55	n/a	n/a	n/a	51	To	68	71	4	2	1	1	-	3	1	-	-	4	-	-	-	NA	-	-	-
NCA26A	RES	66	61	58	50	60	61	To	67	70	115	112	3	-	-	115	-	-	-	115	-	-	-	115	-	-	-
NCA26B	COM	70	70	n/a	n/a	n/a	58	To	67	69	2	2	-	-	-	2	-	-	-	2	-	-	-	NA	-	-	-
NCA26B	RES	71	66	67	59	71	58	To	67	69	1	1	-	-	-	1	-	-	-	1	-	-	-	1	-	-	-

Note 1: Based on Typical Upper LAeq(15 min) noise level for Day, Day OOH, Evening and Night assessments and Worst Case L_Amax noise level for Sleep Disturbance Assessment. Cell colour corresponds to the following exceedance categories:

Green represents the number of receivers compliant with the respective NML.

Yellow represents the number of receivers with NML exceedances of 1 to 10 dB.

Orange represents the number of receivers with NML exceedances of 11 to 20 dB.

Red represents the number of receivers with NML exceedances of greater than 20 dB.

Note 2: Representative of the ongoing level of disturbance experienced by the surrounding sensitive receivers, which caters for the likely variability in the intensity of the works and utilisation rate of the plant and equipment.

Note 3: Representative of the typical worst case level of disturbance experienced by the surrounding sensitive receivers, which caters for likely worst case scenario of the noise intensive equipment located at the closest construction boundary to the receiver with all equipment running.

Table B1-3 Approved Project - Earthworks – All Works

Receiver		NML					LAeq(15 minute) Typical Range			Worst Case LAmax	Total Number of Receivers in Catchment	Number of Receivers per NML assessment category ¹														
NCA	Type ⁴	Day	Day OOH	Evening	Night	Sleep Dist	Lower ² Upper ³					Day	Day OOH			Evening			Night			Sleep Disturbance				
NCA25	COM	70	70	n/a	n/a	n/a	77	To	89	>90	46	39	4	3	-	-	-	-	-	-	-	-	-	-		
NCA25	IND	75	75	n/a	n/a	n/a	53	To	65	70	1	1	-	-	-	-	-	-	-	-	-	-	-			
NCA25	OED	55	n/a	n/a	n/a	n/a	53	To	70	76	5	-	2	3	-	-	-	-	-	-	-	-	-			
NCA25	OOP	60	60	60	n/a	n/a	62	To	73	78	1	-	-	1	-	-	-	-	-	-	-	-	-			
NCA25	OPW	55	55	n/a	n/a	n/a	49	To	60	65	2	-	2	-	-	-	-	-	-	-	-	-	-			
NCA25	OTH	50	50	50	50	n/a	42	To	54	59	1	-	1	-	-	-	-	-	-	-	-	-	-			
NCA25	RES	68	63	61	57	67	62	To	>90	>90	169	138	27	3	1	-	-	-	-	-	-	-	-			
NCA26A	COM	70	70	n/a	n/a	n/a	69	To	80	85	91	68	22	1	-	-	-	-	-	-	-	-	-			
NCA26A	IND	75	75	n/a	n/a	n/a	62	To	75	81	6	5	1	-	-	-	-	-	-	-	-	-	-			
NCA26A	OED	55	n/a	n/a	n/a	n/a	49	To	62	68	1	-	1	-	-	-	-	-	-	-	-	-	-			
NCA26A	OME	55	55	55	55	55	63	To	75	80	1	-	-	1	-	-	-	-	-	-	-	-	-			
NCA26A	OOA	65	65	65	n/a	n/a	55	To	71	77	3	1	2	-	-	-	-	-	-	-	-	-	-			
NCA26A	OOP	60	60	60	n/a	n/a	55	To	70	77	1	-	-	1	-	-	-	-	-	-	-	-	-			
NCA26A	OPW	55	55	n/a	n/a	n/a	52	To	71	77	4	2	1	1	-	-	-	-	-	-	-	-	-			
NCA26A	RES	66	61	58	50	60	63	To	74	79	115	104	11	-	-	-	-	-	-	-	-	-	-			
NCA26B	COM	70	70	n/a	n/a	n/a	63	To	74	79	2	-	2	-	-	-	-	-	-	-	-	-	-			
NCA26B	RES	71	66	67	59	71	62	To	74	79	1	-	1	-	-	-	-	-	-	-	-	-	-			

Note 1: Based on Typical Upper LAeq(15 min) noise level for Day, Day OOH, Evening and Night assessments and Worst Case LAmax noise level for Sleep Disturbance Assessment. Cell colour corresponds to the following exceedance categories:

- Green** represents the number of receivers compliant with the respective NML.
- Yellow** represents the number of receivers with NML exceedances of 1 to 10 dB.
- Orange** represents the number of receivers with NML exceedances of 11 to 20 dB.
- Red** represents the number of receivers with NML exceedances of greater than 20 dB.

Note 2: Representative of the ongoing level of disturbance experienced by the surrounding sensitive receivers, which caters for the likely variability in the intensity of the works and utilisation rate of the plant and equipment.

Note 3: Representative of the typical worst case level of disturbance experienced by the surrounding sensitive receivers, which caters for likely worst case scenario of the noise intensive equipment located at the closest construction boundary to the receiver with all equipment running.

Table B1-4 Approved Project - Earthworks - Support Works Only

Receiver		NML					LAeq(15 minute) Typical Range			Worst Case LAmax	Total Number of Receivers in Catchment	Number of Receivers per NML assessment category ¹														
NCA	Type ⁴	Day	Day OOH	Evening	Night	Sleep Dist	Lower ² Upper ³					Day	Day OOH			Evening			Night			Sleep Disturbance				
NCA25	COM	70	70	n/a	n/a	n/a	76	To	80	84	46	42	4	-	-	-	-	-	-	-	-	-	-	-		
NCA25	IND	75	75	n/a	n/a	n/a	52	To	56	60	1	1	-	-	-	-	-	-	-	-	-	-	-	-		
NCA25	OED	55	n/a	n/a	n/a	n/a	52	To	63	64	5	1	4	-	-	-	-	-	-	-	-	-	-	-		
NCA25	OOP	60	60	60	n/a	n/a	60	To	64	68	1	-	1	-	-	-	-	-	-	-	-	-	-	-		
NCA25	OPW	55	55	n/a	n/a	n/a	47	To	52	55	2	2	-	-	-	-	-	-	-	-	-	-	-	-		
NCA25	OTH	50	50	50	50	n/a	41	To	45	48	1	1	-	-	-	-	-	-	-	-	-	-	-	-		
NCA25	RES	68	63	61	57	67	60	To	90	>90	169	161	6	1	1	-	-	-	-	-	-	-	-	-		
NCA26A	COM	70	70	n/a	n/a	n/a	67	To	71	75	91	90	1	-	-	-	-	-	-	-	-	-	-	-		
NCA26A	IND	75	75	n/a	n/a	n/a	61	To	68	69	6	6	-	-	-	-	-	-	-	-	-	-	-	-		
NCA26A	OED	55	n/a	n/a	n/a	n/a	47	To	54	55	1	1	-	-	-	-	-	-	-	-	-	-	-	-		
NCA26A	OME	55	55	55	55	55	62	To	66	70	1	-	-	1	-	-	-	-	-	-	-	-	-	-		
NCA26A	OOA	65	65	65	n/a	n/a	54	To	64	65	3	3	-	-	-	-	-	-	-	-	-	-	-	-		
NCA26A	OOP	60	60	60	n/a	n/a	53	To	63	64	1	-	1	-	-	-	-	-	-	-	-	-	-	-		
NCA26A	OPW	55	55	n/a	n/a	n/a	51	To	64	65	4	2	2	-	-	-	-	-	-	-	-	-	-	-		
NCA26A	RES	66	61	58	50	60	61	To	65	69	115	115	-	-	-	-	-	-	-	-	-	-	-	-		
NCA26B	COM	70	70	n/a	n/a	n/a	61	To	65	69	2	2	-	-	-	-	-	-	-	-	-	-	-	-		
NCA26B	RES	71	66	67	59	71	61	To	65	68	1	1	-	-	-	-	-	-	-	-	-	-	-	-		

Note 1: Based on Typical Upper LAeq(15 min) noise level for Day, Day OOH, Evening and Night assessments and Worst Case LAmax noise level for Sleep Disturbance Assessment. Cell colour corresponds to the following exceedance categories:

Green represents the number of receivers compliant with the respective NML.

Yellow represents the number of receivers with NML exceedances of 1 to 10 dB.

Orange represents the number of receivers with NML exceedances of 11 to 20 dB.

Red represents the number of receivers with NML exceedances of greater than 20 dB.

Note 2: Representative of the ongoing level of disturbance experienced by the surrounding sensitive receivers, which caters for the likely variability in the intensity of the works and utilisation rate of the plant and equipment.

Note 3: Representative of the typical worst case level of disturbance experienced by the surrounding sensitive receivers, which caters for likely worst case scenario of the noise intensive equipment located at the closest construction boundary to the receiver with all equipment running.

Table B1-5 Approved Project - Excavation Works – All Works

Receiver		NML					LAeq(15 minute) Typical Range			Worst Case LAmax	Total Number of Receivers in Catchment	Number of Receivers per NML assessment category ¹																			
NCA	Type ⁴	Day	Day OOH	Evening	Night	Sleep Dist	Lower ² Upper ³					Day	Day OOH				Evening			Night			Sleep Disturbance								
NCA25	COM	70	70	n/a	n/a	n/a	73	To	89	>90	46	44	1	1	-	44	1	1	-	46	-	-	-	NA	-	-	-	NA	-	-	-
NCA25	IND	75	75	n/a	n/a	n/a	49	To	65	69	1	1	-	-	-	1	-	-	-	1	-	-	-	1	-	-	-	NA	-	-	-
NCA25	OED	55	n/a	n/a	n/a	n/a	49	To	64	69	5	-	5	-	-	5	-	-	-	5	-	-	-	NA	-	-	-	NA	-	-	-
NCA25	OOP	60	60	60	n/a	n/a	58	To	73	78	1	-	-	1	-	-	-	1	-	NA	-	-	-	NA	-	-	-	NA	-	-	-
NCA25	OPW	55	55	n/a	n/a	n/a	45	To	60	65	2	-	2	-	-	-	2	-	-	2	-	-	-	NA	-	-	-	NA	-	-	-
NCA25	OTH	50	50	50	50	n/a	38	To	53	58	1	-	1	-	-	-	1	-	-	-	1	-	-	NA	-	-	-	NA	-	-	-
NCA25	RES	68	63	61	57	67	58	To	73	78	169	166	3	-	-	156	13	-	-	147	20	2	-	110	55	4	-	154	14	1	-
NCA26A	COM	70	70	n/a	n/a	n/a	65	To	80	85	91	71	20	-	-	71	20	-	-	91	-	-	-	NA	-	-	-	NA	-	-	-
NCA26A	IND	75	75	n/a	n/a	n/a	58	To	73	78	6	6	-	-	-	6	-	-	-	6	-	-	-	6	-	-	-	NA	-	-	-
NCA26A	OED	55	n/a	n/a	n/a	n/a	45	To	60	65	1	-	1	-	-	1	-	-	-	1	-	-	-	NA	-	-	-	NA	-	-	-
NCA26A	OME	55	55	55	55	55	59	To	75	80	1	-	-	1	-	-	-	1	-	NA	-	-	-	NA	-	-	-	NA	-	-	-
NCA26A	OOA	65	65	65	n/a	n/a	51	To	67	72	3	2	1	-	-	2	1	-	-	2	1	-	-	NA	-	-	-	NA	-	-	-
NCA26A	OOP	60	60	60	n/a	n/a	51	To	66	71	1	-	1	-	-	-	1	-	-	NA	-	-	-	NA	-	-	-	NA	-	-	-
NCA26A	OPW	55	55	n/a	n/a	n/a	48	To	64	68	4	2	2	-	-	2	2	-	-	4	-	-	-	NA	-	-	-	NA	-	-	-
NCA26A	RES	66	61	58	50	60	59	To	74	79	115	104	11	-	-	90	19	6	-	75	32	8	-	52	34	22	7	68	36	11	-
NCA26B	COM	70	70	n/a	n/a	n/a	59	To	74	79	2	-	2	-	-	-	2	-	-	2	-	-	-	NA	-	-	-	NA	-	-	-
NCA26B	RES	71	66	67	59	71	58	To	73	78	1	-	1	-	-	-	1	-	-	-	1	-	-	-	-	1	-	-	1	-	-

Note 1: Based on Typical Upper LAeq(15 min) noise level for Day, Day OOH, Evening and Night assessments and Worst Case LAmax noise level for Sleep Disturbance Assessment. Cell colour corresponds to the following exceedance categories:

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- Yellow** represents the number of receivers with NML exceedances of 1 to 10 dB.
- Orange** represents the number of receivers with NML exceedances of 11 to 20 dB.
- Red** represents the number of receivers with NML exceedances of greater than 20 dB.

Note 2: Representative of the ongoing level of disturbance experienced by the surrounding sensitive receivers, which caters for the likely variability in the intensity of the works and utilisation rate of the plant and equipment.

Note 3: Representative of the typical worst case level of disturbance experienced by the surrounding sensitive receivers, which caters for likely worst case scenario of the noise intensive equipment located at the closest construction boundary to the receiver with all equipment running.

Table B1-6 Approved Project - Excavation Works - Support Works Only

Receiver		NML					LAeq(15 minute) Typical Range			Worst Case LAmax	Total Number of Receivers in Catchment	Number of Receivers per NML assessment category ¹																			
NCA	Type ⁴	Day	Day OOH	Evening	Night	Sleep Dist	Lower ² Upper ³					Day	Day OOH			Evening			Night			Sleep Disturbance									
NCA25	COM	70	70	n/a	n/a	n/a	72	To	76	78	46	45	1	-	-	45	1	-	-	46	-	-	-	NA	-	-	-	NA	-	-	-
NCA25	IND	75	75	n/a	n/a	n/a	48	To	52	54	1	1	-	-	-	1	-	-	-	1	-	-	-	1	-	-	-	NA	-	-	-
NCA25	OED	55	n/a	n/a	n/a	n/a	48	To	52	54	5	5	-	-	-	5	-	-	-	5	-	-	-	NA	-	-	-	NA	-	-	-
NCA25	OOP	60	60	60	n/a	n/a	56	To	60	62	1	-	1	-	-	-	1	-	-	NA	-	-	-	NA	-	-	-	NA	-	-	-
NCA25	OPW	55	55	n/a	n/a	n/a	43	To	47	49	2	2	-	-	-	2	-	-	-	2	-	-	-	NA	-	-	-	NA	-	-	-
NCA25	OTH	50	50	50	50	n/a	37	To	41	43	1	1	-	-	-	1	-	-	-	1	-	-	-	NA	-	-	-	NA	-	-	-
NCA25	RES	68	63	61	57	67	56	To	60	62	169	169	-	-	-	169	-	-	-	169	-	-	-	167	2	-	-	169	-	-	-
NCA26A	COM	70	70	n/a	n/a	n/a	63	To	67	69	91	91	-	-	-	91	-	-	-	91	-	-	-	NA	-	-	-	NA	-	-	-
NCA26A	IND	75	75	n/a	n/a	n/a	57	To	61	62	6	6	-	-	-	6	-	-	-	6	-	-	-	6	-	-	-	NA	-	-	-
NCA26A	OED	55	n/a	n/a	n/a	n/a	43	To	47	49	1	1	-	-	-	1	-	-	-	1	-	-	-	NA	-	-	-	NA	-	-	-
NCA26A	OME	55	55	55	55	55	58	To	62	64	1	-	1	-	-	-	1	-	-	NA	-	-	-	NA	-	-	-	NA	-	-	-
NCA26A	OOA	65	65	65	n/a	n/a	50	To	54	56	3	3	-	-	-	3	-	-	-	3	-	-	-	NA	-	-	-	NA	-	-	-
NCA26A	OOP	60	60	60	n/a	n/a	49	To	53	55	1	1	-	-	-	1	-	-	-	NA	-	-	-	NA	-	-	-	NA	-	-	-
NCA26A	OPW	55	55	n/a	n/a	n/a	47	To	51	53	4	4	-	-	-	4	-	-	-	4	-	-	-	NA	-	-	-	NA	-	-	-
NCA26A	RES	66	61	58	50	60	57	To	61	63	115	115	-	-	-	112	3	-	-	109	6	-	-	98	13	4	-	109	6	-	-
NCA26B	COM	70	70	n/a	n/a	n/a	57	To	61	63	2	2	-	-	-	2	-	-	-	2	-	-	-	NA	-	-	-	NA	-	-	-
NCA26B	RES	71	66	67	59	71	57	To	61	63	1	1	-	-	-	1	-	-	-	1	-	-	-	-	1	-	-	1	-	-	-

Note 1: Based on Typical Upper LAeq(15 min) noise level for Day, Day OOH, Evening and Night assessments and Worst Case LAmax noise level for Sleep Disturbance Assessment. Cell colour corresponds to the following exceedance categories:

- Green** represents the number of receivers compliant with the respective NML.
- Yellow** represents the number of receivers with NML exceedances of 1 to 10 dB.
- Orange** represents the number of receivers with NML exceedances of 11 to 20 dB.
- Red** represents the number of receivers with NML exceedances of greater than 20 dB.

Note 2: Representative of the ongoing level of disturbance experienced by the surrounding sensitive receivers, which caters for the likely variability in the intensity of the works and utilisation rate of the plant and equipment.

Note 3: Representative of the typical worst case level of disturbance experienced by the surrounding sensitive receivers, which caters for likely worst case scenario of the noise intensive equipment located at the closest construction boundary to the receiver with all equipment running.

Table B1-7 Approved Project - Construction Works – All Works

Receiver		NML					LAeq(15 minute) Typical Range			Worst Case LAmax	Total Number of Receivers in Catchment	Number of Receivers per NML assessment category ¹														
NCA	Type ⁴	Day	Day OOH	Evening	Night	Sleep Dist	Lower ² Upper ³					Day	Day OOH				Evening			Night			Sleep Disturbance			
NCA25	COM	70	70	n/a	n/a	n/a	73	To	80	80	46	42	4	-	-	-	-	-	-	-	-	-	-	-	-	
NCA25	IND	75	75	n/a	n/a	n/a	49	To	56	56	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	
NCA25	OED	55	n/a	n/a	n/a	n/a	49	To	62	64	5	1	4	-	-	-	-	-	-	-	-	-	-	-	-	
NCA25	OOP	60	60	60	n/a	n/a	58	To	64	64	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	
NCA25	OPW	55	55	n/a	n/a	n/a	45	To	51	53	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	
NCA25	OTH	50	50	50	50	n/a	38	To	45	45	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	
NCA25	RES	68	63	61	57	67	58	To	89	>90	169	163	4	1	1	-	-	-	-	-	-	-	-	-	-	
NCA26A	COM	70	70	n/a	n/a	n/a	65	To	71	71	91	90	1	-	-	-	-	-	-	-	-	-	-	-	-	
NCA26A	IND	75	75	n/a	n/a	n/a	58	To	67	69	6	6	-	-	-	-	-	-	-	-	-	-	-	-	-	
NCA26A	OED	55	n/a	n/a	n/a	n/a	45	To	54	56	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	
NCA26A	OME	55	55	55	55	55	59	To	66	66	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	
NCA26A	OOA	65	65	65	n/a	n/a	51	To	63	65	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	
NCA26A	OOP	60	60	60	n/a	n/a	51	To	62	64	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	
NCA26A	OPW	55	55	n/a	n/a	n/a	48	To	63	65	4	2	2	-	-	-	-	-	-	-	-	-	-	-	-	
NCA26A	RES	66	61	58	50	60	59	To	65	66	115	115	-	-	-	-	-	-	-	-	-	-	-	-	-	
NCA26B	COM	70	70	n/a	n/a	n/a	59	To	65	65	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	
NCA26B	RES	71	66	67	59	71	58	To	65	65	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	

Note 1: Based on Typical Upper LAeq(15 min) noise level for Day, Day OOH, Evening and Night assessments and Worst Case L_{Amax} noise level for Sleep Disturbance Assessment. Cell colour corresponds to the following exceedance categories:

- Green** represents the number of receivers compliant with the respective NML.
- Yellow** represents the number of receivers with NML exceedances of 1 to 10 dB.
- Orange** represents the number of receivers with NML exceedances of 11 to 20 dB.
- Red** represents the number of receivers with NML exceedances of greater than 20 dB.

Note 2: Representative of the ongoing level of disturbance experienced by the surrounding sensitive receivers, which caters for the likely variability in the intensity of the works and utilisation rate of the plant and equipment.

Note 3: Representative of the typical worst case level of disturbance experienced by the surrounding sensitive receivers, which caters for likely worst case scenario of the noise intensive equipment located at the closest construction boundary to the receiver with all equipment running.

Table B1-8 Approved Project - Construction Works - Support Works Only

Receiver		NML					LAeq(15 minute) Typical Range			Worst Case LAmax	Total Number of Receivers in Catchment	Number of Receivers per NML assessment category ¹														
NCA	Type ⁴	Day	Day OOH	Evening	Night	Sleep Dist	Lower ² Upper ³					Day	Day OOH				Evening			Night			Sleep Disturbance			
NCA25	COM	70	70	n/a	n/a	n/a	73	To	80	80	46	42	4	-	-	-	-	-	-	-	-	-	-	-	-	
NCA25	IND	75	75	n/a	n/a	n/a	49	To	56	56	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	
NCA25	OED	55	n/a	n/a	n/a	n/a	49	To	62	64	5	1	4	-	-	-	-	-	-	-	-	-	-	-	-	
NCA25	OOP	60	60	60	n/a	n/a	58	To	64	64	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	
NCA25	OPW	55	55	n/a	n/a	n/a	45	To	51	53	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	
NCA25	OTH	50	50	50	50	n/a	38	To	45	45	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	
NCA25	RES	68	63	61	57	67	58	To	89	>90	169	163	4	1	1	-	-	-	-	-	-	-	-	-	-	
NCA26A	COM	70	70	n/a	n/a	n/a	65	To	71	71	91	90	1	-	-	-	-	-	-	-	-	-	-	-	-	
NCA26A	IND	75	75	n/a	n/a	n/a	58	To	67	69	6	6	-	-	-	-	-	-	-	-	-	-	-	-	-	
NCA26A	OED	55	n/a	n/a	n/a	n/a	45	To	54	56	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	
NCA26A	OME	55	55	55	55	55	59	To	66	66	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	
NCA26A	OOA	65	65	65	n/a	n/a	51	To	63	65	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	
NCA26A	OOP	60	60	60	n/a	n/a	51	To	62	64	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	
NCA26A	OPW	55	55	n/a	n/a	n/a	48	To	63	65	4	2	2	-	-	-	-	-	-	-	-	-	-	-	-	
NCA26A	RES	66	61	58	50	60	59	To	65	66	115	115	-	-	-	-	-	-	-	-	-	-	-	-	-	
NCA26B	COM	70	70	n/a	n/a	n/a	59	To	65	65	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	
NCA26B	RES	71	66	67	59	71	58	To	65	65	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	

Note 1: Based on Typical Upper LAeq(15 min) noise level for Day, Day OOH, Evening and Night assessments and Worst Case L_{Amax} noise level for Sleep Disturbance Assessment. Cell colour corresponds to the following exceedance categories:

Green represents the number of receivers compliant with the respective NML.

Yellow represents the number of receivers with NML exceedances of 1 to 10 dB.

Orange represents the number of receivers with NML exceedances of 11 to 20 dB.

Red represents the number of receivers with NML exceedances of greater than 20 dB.

Note 2: Representative of the ongoing level of disturbance experienced by the surrounding sensitive receivers, which caters for the likely variability in the intensity of the works and utilisation rate of the plant and equipment.

Note 3: Representative of the typical worst case level of disturbance experienced by the surrounding sensitive receivers, which caters for likely worst case scenario of the noise intensive equipment located at the closest construction boundary to the receiver with all equipment running.

MODIFICATION – ACTIVITY NML EXCEEDANCES

Table B2-1 Modification - Enabling Works – All Works

Receiver		NML					LAeq(15 minute) Typical Range		Worst Case LAmax	Total Number of Receivers in Catchment	Number of Receivers per NML assessment category1															
NCA	Type4	Day	Day OOH	Evening	Night	Sleep Dist	Lower2	Upper3	Day		Day OOH			Evening			Night			Sleep Disturbance						
NCA25	COM	70	70	n/a	n/a	n/a	64	To 75	80	46	46	-	-	-	45	1	-	-	46	-	-	-	NA	-	-	-
NCA25	IND	75	75	n/a	n/a	n/a	50	To 62	66	1	1	-	-	-	1	-	-	-	1	-	-	-	1	-	-	-
NCA25	OED	55	n/a	n/a	n/a	n/a	55	To 64	69	5	1	4	-	-	5	-	-	-	5	-	-	-	NA	-	-	-
NCA25	OOP	60	60	60	n/a	n/a	56	To 66	71	1	-	1	-	-	-	1	-	-	NA	-	-	-	NA	-	-	-
NCA25	OPW	55	55	n/a	n/a	n/a	51	To 60	64	2	1	1	-	-	-	2	-	-	2	-	-	-	NA	-	-	-
NCA25	OTH	50	50	50	50	n/a	41	To 49	54	1	1	-	-	-	1	-	-	-	1	-	-	-	NA	-	-	-
NCA25	RES	68	63	61	57	67	68	To 70	79	169	168	1	-	-	159	10	-	-	154	15	-	-	121	44	4	-
NCA26A	COM	70	70	n/a	n/a	n/a	78	To >90	>90	91	81	6	2	2	79	10	1	1	91	-	-	-	NA	-	-	-
NCA26A	IND	75	75	n/a	n/a	n/a	60	To 69	74	6	6	-	-	-	6	-	-	-	6	-	-	-	6	-	-	-
NCA26A	OED	55	n/a	n/a	n/a	n/a	44	To 61	65	1	1	-	-	-	1	-	-	-	1	-	-	-	NA	-	-	-
NCA26A	OME	55	55	55	55	55	81	To 89	>90	1	-	-	-	1	-	-	-	1	NA	-	-	-	NA	-	-	-
NCA26A	OOA	65	65	65	n/a	n/a	54	To 63	68	3	3	-	-	-	3	-	-	-	3	-	-	-	NA	-	-	-
NCA26A	OOP	60	60	60	n/a	n/a	55	To 66	71	1	1	-	-	-	-	1	-	-	NA	-	-	-	NA	-	-	-
NCA26A	OPW	55	55	n/a	n/a	n/a	54	To 64	69	4	4	-	-	-	2	2	-	-	4	-	-	-	NA	-	-	-
NCA26A	RES	66	61	58	50	60	>90	To >90	>90	115	109	3	1	2	103	7	3	2	94	16	2	3	62	38	10	5
NCA26B	COM	70	70	n/a	n/a	n/a	86	To >90	>90	2	-	-	-	2	-	2	-	-	2	-	-	-	NA	-	-	-
NCA26B	RES	71	66	67	59	71	85	To >90	>90	1	-	-	-	1	-	-	1	-	-	-	1	-	-	-	1	-

Note 1: Based on Typical Upper LAeq(15 min) noise level for Day, Day OOH, Evening and Night assessments and Worst Case LAmax noise level for Sleep Disturbance Assessment. Cell colour corresponds to the following exceedance categories:

- Green** represents the number of receivers compliant with the respective NML.
- Yellow** represents the number of receivers with NML exceedances of 1 to 10 dB.
- Orange** represents the number of receivers with NML exceedances of 11 to 20 dB.
- Red** represents the number of receivers with NML exceedances of greater than 20 dB.

Note 2: Representative of the ongoing level of disturbance experienced by the surrounding sensitive receivers, which caters for the likely variability in the intensity of the works and utilisation rate of the plant and equipment.

Note 3: Representative of the typical worst case level of disturbance experienced by the surrounding sensitive receivers, which caters for likely worst case scenario of the noise intensive equipment located at the closest construction boundary to the receiver with all equipment running.

Table B2-2 Modification - Enabling Works – Support Works Only

Receiver		NML					LAeq(15 minute) Typical Range			Worst Case LAmax	Total Number of Receivers in Catchment	Number of Receivers per NML assessment category ¹															
NCA	Type ⁴	Day	Day OOH	Evening	Night	Sleep Dist	Lower ² Upper ³					Day	Day OOH			Evening			Night			Sleep Disturbance					
NCA25	COM	70	70	n/a	n/a	n/a	54	To	66	71	46	46	-	-	-	46	-	-	-	46	-	-	-	NA	-	-	-
NCA25	IND	75	75	n/a	n/a	n/a	43	To	55	60	1	1	-	-	-	1	-	-	-	1	-	-	-	1	-	-	-
NCA25	OED	55	n/a	n/a	n/a	n/a	46	To	57	63	5	1	4	-	-	5	-	-	-	5	-	-	-	NA	-	-	-
NCA25	OOP	60	60	60	n/a	n/a	49	To	60	66	1	-	1	-	-	1	-	-	-	NA	-	-	-	NA	-	-	-
NCA25	OPW	55	55	n/a	n/a	n/a	44	To	56	61	2	1	1	-	-	2	-	-	-	2	-	-	-	NA	-	-	-
NCA25	OTH	50	50	50	50	n/a	34	To	46	51	1	1	-	-	-	1	-	-	-	1	-	-	-	NA	-	-	-
NCA25	RES	68	63	61	57	67	68	To	68	79	169	168	1	-	-	167	2	-	-	166	3	-	-	160	8	1	-
NCA26A	COM	70	70	n/a	n/a	n/a	74	To	>90	>90	91	86	1	2	2	89	1	-	1	91	-	-	-	NA	-	-	-
NCA26A	IND	75	75	n/a	n/a	n/a	53	To	62	63	6	6	-	-	-	6	-	-	-	6	-	-	-	6	-	-	-
NCA26A	OED	55	n/a	n/a	n/a	n/a	41	To	54	54	1	1	-	-	-	1	-	-	-	1	-	-	-	NA	-	-	-
NCA26A	OME	55	55	55	55	55	77	To	87	>90	1	-	-	-	1	-	-	1	-	-	-	-	NA	-	-	-	
NCA26A	OOA	65	65	65	n/a	n/a	47	To	56	57	3	3	-	-	-	3	-	-	-	3	-	-	-	NA	-	-	-
NCA26A	OOP	60	60	60	n/a	n/a	49	To	59	59	1	1	-	-	-	1	-	-	-	NA	-	-	-	NA	-	-	-
NCA26A	OPW	55	55	n/a	n/a	n/a	48	To	57	58	4	4	-	-	-	3	1	-	-	4	-	-	-	NA	-	-	-
NCA26A	RES	66	61	58	50	60	>90	To	>90	>90	115	110	2	1	2	110	2	3	-	109	3	3	-	90	20	2	3
NCA26B	COM	70	70	n/a	n/a	n/a	83	To	>90	>90	2	-	-	-	2	-	2	-	-	2	-	-	-	NA	-	-	-
NCA26B	RES	71	66	67	59	71	82	To	>90	>90	1	-	-	-	1	-	1	-	-	-	1	-	-	-	-	1	-

Note 1: Based on Typical Upper LAeq(15 min) noise level for Day, Day OOH, Evening and Night assessments and Worst Case L_{Amax} noise level for Sleep Disturbance Assessment. Cell colour corresponds to the following exceedance categories:

Green represents the number of receivers compliant with the respective NML.

Yellow represents the number of receivers with NML exceedances of 1 to 10 dB.

Orange represents the number of receivers with NML exceedances of 11 to 20 dB.

Red represents the number of receivers with NML exceedances of greater than 20 dB.

Note 2: Representative of the ongoing level of disturbance experienced by the surrounding sensitive receivers, which caters for the likely variability in the intensity of the works and utilisation rate of the plant and equipment.

Note 3: Representative of the typical worst case level of disturbance experienced by the surrounding sensitive receivers, which caters for likely worst case scenario of the noise intensive equipment located at the closest construction boundary to the receiver with all equipment running.

Table B2-3 Modification - Earthworks – All Works

Receiver		NML					LAeq(15 minute) Typical Range			Worst Case L _A max	Total Number of Receivers in Catchment	Number of Receivers per NML assessment category ¹														
NCA	Type ⁴	Day	Day OOH	Evening	Night	Sleep Dist	Lower ² Upper ³					Day	Day OOH				Evening				Night				Sleep Disturbance	
NCA25	COM	70	70	n/a	n/a	n/a	58	To	69	74	46	46	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NCA25	IND	75	75	n/a	n/a	n/a	47	To	59	63	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NCA25	OED	55	n/a	n/a	n/a	n/a	50	To	61	66	5	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-
NCA25	OOP	60	60	60	n/a	n/a	53	To	64	69	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
NCA25	OPW	55	55	n/a	n/a	n/a	48	To	59	64	2	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
NCA25	OTH	50	50	50	50	n/a	38	To	50	54	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NCA25	RES	68	63	61	57	67	68	To	68	79	169	168	1	-	-	-	-	-	-	-	-	-	-	-	-	-
NCA26A	COM	70	70	n/a	n/a	n/a	75	To	87	>90	91	81	7	3	-	-	-	-	-	-	-	-	-	-	-	-
NCA26A	IND	75	75	n/a	n/a	n/a	49	To	57	62	6	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NCA26A	OED	55	n/a	n/a	n/a	n/a	35	To	44	50	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NCA26A	OME	55	55	55	55	55	78	To	90	>90	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
NCA26A	OOA	65	65	65	n/a	n/a	43	To	50	56	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NCA26A	OOP	60	60	60	n/a	n/a	43	To	52	57	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NCA26A	OPW	55	55	n/a	n/a	n/a	44	To	51	57	4	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NCA26A	RES	66	61	58	50	60	>90	To	>90	>90	115	109	3	2	1	-	-	-	-	-	-	-	-	-	-	-
NCA26B	COM	70	70	n/a	n/a	n/a	84	To	>90	>90	2	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-
NCA26B	RES	71	66	67	59	71	83	To	>90	>90	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-

Note 1: Based on Typical Upper LAeq(15 min) noise level for Day, Day OOH, Evening and Night assessments and Worst Case L_{Amax} noise level for Sleep Disturbance Assessment. Cell colour corresponds to the following exceedance categories:

- Green** represents the number of receivers compliant with the respective NML.
- Yellow** represents the number of receivers with NML exceedances of 1 to 10 dB.
- Orange** represents the number of receivers with NML exceedances of 11 to 20 dB.
- Red** represents the number of receivers with NML exceedances of greater than 20 dB.

Note 2: Representative of the ongoing level of disturbance experienced by the surrounding sensitive receivers, which caters for the likely variability in the intensity of the works and utilisation rate of the plant and equipment.

Note 3: Representative of the typical worst case level of disturbance experienced by the surrounding sensitive receivers, which caters for likely worst case scenario of the noise intensive equipment located at the closest construction boundary to the receiver with all equipment running.

Table B2-4 Modification - Earthworks - Support Works Only

Receiver		NML					LAeq(15 minute) Typical Range		Worst Case LAmax	Total Number of Receivers in Catchment	Number of Receivers per NML assessment category¹									
NCA	Type⁴	Day	Day OOH	Evening	Night	Sleep Dist	Lower²	Upper³			Day	Day OOH			Evening		Night		Sleep Disturbance	
NCA25	COM	70	70	n/a	n/a	n/a	56	To 60	64	46	46	-	-	-	-	-	-	-	-	-
NCA25	IND	75	75	n/a	n/a	n/a	46	To 50	50	1	1	-	-	-	-	-	-	-	-	-
NCA25	OED	55	n/a	n/a	n/a	n/a	48	To 52	55	5	5	-	-	-	-	-	-	-	-	-
NCA25	OOP	60	60	60	n/a	n/a	51	To 55	56	1	1	-	-	-	-	-	-	-	-	-
NCA25	OPW	55	55	n/a	n/a	n/a	46	To 50	51	2	2	-	-	-	-	-	-	-	-	-
NCA25	OTH	50	50	50	50	n/a	37	To 41	41	1	1	-	-	-	-	-	-	-	-	-
NCA25	RES	68	63	61	57	67	68	To 68	79	169	168	1	-	-	-	-	-	-	-	-
NCA26A	COM	70	70	n/a	n/a	n/a	74	To 78	78	91	88	3	-	-	-	-	-	-	-	-
NCA26A	IND	75	75	n/a	n/a	n/a	48	To 50	58	6	6	-	-	-	-	-	-	-	-	-
NCA26A	OED	55	n/a	n/a	n/a	n/a	35	To 37	44	1	1	-	-	-	-	-	-	-	-	-
NCA26A	OME	55	55	55	55	55	77	To 81	81	1	-	-	-	1	-	-	-	-	-	-
NCA26A	OOA	65	65	65	n/a	n/a	43	To 44	53	3	3	-	-	-	-	-	-	-	-	-
NCA26A	OOP	60	60	60	n/a	n/a	42	To 44	53	1	1	-	-	-	-	-	-	-	-	-
NCA26A	OPW	55	55	n/a	n/a	n/a	43	To 44	53	4	4	-	-	-	-	-	-	-	-	-
NCA26A	RES	66	61	58	50	60	>90	To >90	>90	115	112	2	-	-	1	-	-	-	-	-
NCA26B	COM	70	70	n/a	n/a	n/a	82	To 86	87	2	-	-	2	-	-	-	-	-	-	-
NCA26B	RES	71	66	67	59	71	81	To 85	86	1	-	-	1	-	-	-	-	-	-	-

Note 1: Based on Typical Upper LAeq(15 min) noise level for Day, Day OOH, Evening and Night assessments and Worst Case LAmax noise level for Sleep Disturbance Assessment. Cell colour corresponds to the following exceedance categories:

- Green** represents the number of receivers compliant with the respective NML.
- Yellow** represents the number of receivers with NML exceedances of 1 to 10 dB.
- Orange** represents the number of receivers with NML exceedances of 11 to 20 dB.
- Red** represents the number of receivers with NML exceedances of greater than 20 dB.

Note 2: Representative of the ongoing level of disturbance experienced by the surrounding sensitive receivers, which caters for the likely variability in the intensity of the works and utilisation rate of the plant and equipment.

Note 3: Representative of the typical worst case level of disturbance experienced by the surrounding sensitive receivers, which caters for likely worst case scenario of the noise intensive equipment located at the closest construction boundary to the receiver with all equipment running.

Table B2-5 Modification - Excavation Works – All Works

Receiver		NML					LAeq(15 minute) Typical Range			Worst Case LAmax	Total Number of Receivers in Catchment	Number of Receivers per NML assessment category¹																			
NCA	Type⁴	Day	Day OOH	Evening	Night	Sleep Dist	Lower² Upper³					Day	Day OOH			Evening			Night			Sleep Disturbance									
NCA25	COM	70	70	n/a	n/a	n/a	65	To	75	80	46	46	-	-	-	45	1	-	-	46	-	-	-	NA	-	-	-	NA	-	-	-
NCA25	IND	75	75	n/a	n/a	n/a	43	To	61	66	1	1	-	-	-	1	-	-	-	1	-	-	-	1	-	-	-	NA	-	-	-
NCA25	OED	55	n/a	n/a	n/a	n/a	55	To	64	69	5	1	4	-	-	5	-	-	-	5	-	-	-	NA	-	-	-	NA	-	-	-
NCA25	OOP	60	60	60	n/a	n/a	57	To	66	71	1	-	1	-	-	-	1	-	-	NA	-	-	-	NA	-	-	-	NA	-	-	-
NCA25	OPW	55	55	n/a	n/a	n/a	51	To	59	64	2	1	1	-	-	-	2	-	-	2	-	-	-	NA	-	-	-	NA	-	-	-
NCA25	OTH	50	50	50	50	n/a	34	To	49	54	1	1	-	-	-	1	-	-	-	1	-	-	-	NA	-	-	-	NA	-	-	-
NCA25	RES	68	63	61	57	67	68	To	70	79	169	168	1	-	-	159	10	-	-	154	15	-	-	121	44	4	-	156	12	1	-
NCA26A	COM	70	70	n/a	n/a	n/a	71	To	87	>90	91	81	7	3	-	79	12	-	-	91	-	-	-	NA	-	-	-	NA	-	-	-
NCA26A	IND	75	75	n/a	n/a	n/a	61	To	69	74	6	6	-	-	-	6	-	-	-	6	-	-	-	6	-	-	-	NA	-	-	-
NCA26A	OED	55	n/a	n/a	n/a	n/a	45	To	61	65	1	1	-	-	-	1	-	-	-	1	-	-	-	NA	-	-	-	NA	-	-	-
NCA26A	OME	55	55	55	55	55	74	To	89	>90	1	-	-	-	1	-	-	-	1	NA	-	-	-	NA	-	-	-	NA	-	-	-
NCA26A	OOA	65	65	65	n/a	n/a	55	To	63	68	3	3	-	-	-	3	-	-	-	3	-	-	-	NA	-	-	-	NA	-	-	-
NCA26A	OOP	60	60	60	n/a	n/a	56	To	66	71	1	1	-	-	-	-	1	-	-	NA	1	-	-	NA	-	-	-	NA	-	-	-
NCA26A	OPW	55	55	n/a	n/a	n/a	54	To	64	69	4	4	-	-	-	2	2	-	-	4	-	-	-	NA	-	-	-	NA	-	-	-
NCA26A	RES	66	61	58	50	60	>90	To	>90	>90	115	109	3	2	1	105	6	3	1	98	12	4	1	84	18	8	5	89	20	3	3
NCA26B	COM	70	70	n/a	n/a	n/a	80	To	>90	>90	2	-	-	-	2	-	-	2	-	2	-	-	-	NA	-	-	-	NA	-	-	-
NCA26B	RES	71	66	67	59	71	79	To	>90	>90	1	-	-	-	1	-	-	-	1	-	-	1	-	-	-	1	-	-	-	1	-

Note 1: Based on Typical Upper LAeq(15 min) noise level for Day, Day OOH, Evening and Night assessments and Worst Case LAmax noise level for Sleep Disturbance Assessment. Cell colour corresponds to the following exceedance categories:

- Green** represents the number of receivers compliant with the respective NML.
- Yellow** represents the number of receivers with NML exceedances of 1 to 10 dB.
- Orange** represents the number of receivers with NML exceedances of 11 to 20 dB.
- Red** represents the number of receivers with NML exceedances of greater than 20 dB.

Note 2: Representative of the ongoing level of disturbance experienced by the surrounding sensitive receivers, which caters for the likely variability in the intensity of the works and utilisation rate of the plant and equipment.

Note 3: Representative of the typical worst case level of disturbance experienced by the surrounding sensitive receivers, which caters for likely worst case scenario of the noise intensive equipment located at the closest construction boundary to the receiver with all equipment running.

Table B2-6 Modification - Excavation Works - Support Works Only

Receiver		NML					LAeq(15 minute) Typical Range			Worst Case LAmax	Total Number of Receivers in Catchment	Number of Receivers per NML assessment category ¹																
NCA	Type ⁴	Day	Day OOH	Evening	Night	Sleep Dist	Lower ² Upper ³					Day	Day OOH			Evening			Night			Sleep Disturbance						
NCA25	COM	70	70	n/a	n/a	n/a	54	To	62	64	46	46	-	-	-	46	-	-	-	46	-	-	-	NA	-	-	-	
NCA25	IND	75	75	n/a	n/a	n/a	43	To	52	53	1	1	-	-	-	1	-	-	-	1	-	-	-	1	-	-	-	
NCA25	OED	55	n/a	n/a	n/a	n/a	46	To	54	56	5	5	-	-	-	5	-	-	-	5	-	-	-	NA	-	-	-	
NCA25	OOP	60	60	60	n/a	n/a	49	To	57	59	1	1	-	-	-	1	-	-	-	NA	-	-	-	NA	-	-	-	
NCA25	OPW	55	55	n/a	n/a	n/a	44	To	52	54	2	2	-	-	-	2	-	-	-	2	-	-	-	NA	-	-	-	
NCA25	OTH	50	50	50	50	n/a	34	To	42	44	1	1	-	-	-	1	-	-	-	1	-	-	-	NA	-	-	-	
NCA25	RES	68	63	61	57	67	68	To	68	79	169	168	1	-	-	168	1	-	-	168	1	-	-	165	3	1	-	
NCA26A	COM	70	70	n/a	n/a	n/a	71	To	80	81	91	87	4	-	-	87	4	-	-	91	-	-	-	NA	-	-	-	
NCA26A	IND	75	75	n/a	n/a	n/a	53	To	56	59	6	6	-	-	-	6	-	-	-	6	-	-	-	6	-	-	-	
NCA26A	OED	55	n/a	n/a	n/a	n/a	38	To	48	49	1	1	-	-	-	1	-	-	-	1	-	-	-	NA	-	-	-	
NCA26A	OME	55	55	55	55	55	74	To	82	84	1	-	-	-	1	-	-	-	1	NA	-	-	-	NA	-	-	-	
NCA26A	OOA	65	65	65	n/a	n/a	47	To	50	54	3	3	-	-	-	3	-	-	-	3	-	-	-	NA	-	-	-	
NCA26A	OOP	60	60	60	n/a	n/a	48	To	53	54	1	1	-	-	-	1	-	-	-	NA	-	-	-	NA	-	-	-	
NCA26A	OPW	55	55	n/a	n/a	n/a	46	To	51	54	4	4	-	-	-	4	-	-	-	4	-	-	-	NA	-	-	-	
NCA26A	RES	66	61	58	50	60	>90	To	>90	>90	115	112	1	1	1	110	2	2	1	109	3	2	1	100	10	2	3	
NCA26B	COM	70	70	n/a	n/a	n/a	80	To	88	90	2	-	-	2	-	-	-	2	-	-	-	2	-	-	NA	-	-	-
NCA26B	RES	71	66	67	59	71	79	To	87	89	1	-	-	1	-	-	-	1	-	-	1	-	-	-	1	-	-	

Note 1: Based on Typical Upper LAeq(15 min) noise level for Day, Day OOH, Evening and Night assessments and Worst Case LAmax noise level for Sleep Disturbance Assessment. Cell colour corresponds to the following exceedance categories:

- Green** represents the number of receivers compliant with the respective NML.
- Yellow** represents the number of receivers with NML exceedances of 1 to 10 dB.
- Orange** represents the number of receivers with NML exceedances of 11 to 20 dB.
- Red** represents the number of receivers with NML exceedances of greater than 20 dB.

Note 2: Representative of the ongoing level of disturbance experienced by the surrounding sensitive receivers, which caters for the likely variability in the intensity of the works and utilisation rate of the plant and equipment.

Note 3: Representative of the typical worst case level of disturbance experienced by the surrounding sensitive receivers, which caters for likely worst case scenario of the noise intensive equipment located at the closest construction boundary to the receiver with all equipment running.

Table B2-7 Modification - Construction Works – All Works

Receiver		NML					LAeq(15 minute) Typical Range			Worst Case LAmax	Total Number of Receivers in Catchment	Number of Receivers per NML assessment category ¹																
NCA	Type ⁴	Day	Day OOH	Evening	Night	Sleep Dist	Lower ²		Upper ³			Day	Day OOH				Evening			Night			Sleep Disturbance					
NCA25	COM	70	70	n/a	n/a	n/a	57	To	82	82	46	43	2	1	-	43	2	1	-	46	-	-	-	NA	-	-	-	
NCA25	IND	75	75	n/a	n/a	n/a	41	To	54	54	1	1	-	-	-	1	-	-	-	1	-	-	-	1	-	-	-	
NCA25	OED	55	n/a	n/a	n/a	n/a	47	To	60	61	5	2	3	-	-	5	-	-	-	5	-	-	-	NA	-	-	-	
NCA25	OOP	60	60	60	n/a	n/a	47	To	60	60	1	1	-	-	-	1	-	-	-	NA	-	-	-	NA	-	-	-	
NCA25	OPW	55	55	n/a	n/a	n/a	42	To	55	55	2	2	-	-	-	2	-	-	-	2	-	-	-	NA	-	-	-	
NCA25	OTH	50	50	50	50	n/a	32	To	43	44	1	1	-	-	-	1	-	-	-	1	-	-	-	NA	-	-	-	
NCA25	RES	68	63	61	57	67	68	To	80	80	169	165	2	2	-	165	2	2	-	164	3	2	-	152	13	2	2	
NCA26A	COM	70	70	n/a	n/a	n/a	69	To	78	78	91	85	6	-	-	91	-	-	-	91	-	-	-	NA	-	-	-	
NCA26A	IND	75	75	n/a	n/a	n/a	52	To	65	65	6	6	-	-	-	6	-	-	-	6	-	-	-	6	-	-	-	
NCA26A	OED	55	n/a	n/a	n/a	n/a	44	To	54	55	1	1	-	-	-	1	-	-	-	1	-	-	-	NA	-	-	-	
NCA26A	OME	55	55	55	55	55	72	To	81	81	1	-	-	-	1	-	-	1	-	NA	-	-	-	NA	-	-	-	
NCA26A	OOA	65	65	65	n/a	n/a	47	To	59	60	3	3	-	-	-	3	-	-	-	3	-	-	-	NA	-	-	-	
NCA26A	OOP	60	60	60	n/a	n/a	47	To	59	60	1	1	-	-	-	1	-	-	-	NA	-	-	-	NA	-	-	-	
NCA26A	OPW	55	55	n/a	n/a	n/a	45	To	56	56	4	3	1	-	-	3	1	-	-	4	-	-	-	NA	-	-	-	
NCA26A	RES	66	61	58	50	60	89	To	>90	>90	115	111	3	-	1	110	4	1	-	108	5	2	-	80	29	5	1	
NCA26B	COM	70	70	n/a	n/a	n/a	78	To	86	86	2	-	-	2	-	-	2	-	-	-	2	-	-	-	NA	-	-	-
NCA26B	RES	71	66	67	59	71	77	To	85	85	1	-	-	1	-	-	-	1	-	-	1	-	-	-	1	-	-	-

Note 1: Based on Typical Upper LAeq(15 min) noise level for Day, Day OOH, Evening and Night assessments and Worst Case L_{Amax} noise level for Sleep Disturbance Assessment. Cell colour corresponds to the following exceedance categories:

- Green** represents the number of receivers compliant with the respective NML.
- Yellow** represents the number of receivers with NML exceedances of 1 to 10 dB.
- Orange** represents the number of receivers with NML exceedances of 11 to 20 dB.
- Red** represents the number of receivers with NML exceedances of greater than 20 dB.

Note 2: Representative of the ongoing level of disturbance experienced by the surrounding sensitive receivers, which caters for the likely variability in the intensity of the works and utilisation rate of the plant and equipment.

Note 3: Representative of the typical worst case level of disturbance experienced by the surrounding sensitive receivers, which caters for likely worst case scenario of the noise intensive equipment located at the closest construction boundary to the receiver with all equipment running.

Table B2-8 Modification - Construction Works - Support Works Only

Receiver		NML					LAeq(15 minute) Typical Range			Worst Case LAmax	Total Number of Receivers in Catchment	Number of Receivers per NML assessment category ¹																				
NCA	Type ⁴	Day	Day OOH	Evening	Night	Sleep Dist	Lower ²		Upper ³			Day	Day OOH				Evening			Night			Sleep Disturbance									
NCA25	COM	70	70	n/a	n/a	n/a	57	To	82	82	46	43	2	1	-	43	2	1	-	46	-	-	-	NA	-	-	-	NA	-	-	-	
NCA25	IND	75	75	n/a	n/a	n/a	41	To	54	54	1	1	-	-	-	1	-	-	-	1	-	-	-	1	-	-	-	NA	-	-	-	
NCA25	OED	55	n/a	n/a	n/a	n/a	47	To	60	61	5	2	3	-	-	5	-	-	-	5	-	-	-	NA	-	-	-	NA	-	-	-	
NCA25	OOP	60	60	60	n/a	n/a	47	To	60	60	1	1	-	-	-	1	-	-	-	NA	-	-	-	NA	-	-	-	NA	-	-	-	
NCA25	OPW	55	55	n/a	n/a	n/a	42	To	55	55	2	2	-	-	-	2	-	-	-	2	-	-	-	NA	-	-	-	NA	-	-	-	
NCA25	OTH	50	50	50	50	n/a	32	To	43	44	1	1	-	-	-	1	-	-	-	1	-	-	-	NA	-	-	-	NA	-	-	-	
NCA25	RES	68	63	61	57	67	68	To	80	80	169	165	2	2	-	165	2	2	-	164	3	2	-	152	13	2	2	164	2	3	-	
NCA26A	COM	70	70	n/a	n/a	n/a	69	To	78	78	91	85	6	-	-	91	-	-	-	91	-	-	-	NA	-	-	-	NA	-	-	-	
NCA26A	IND	75	75	n/a	n/a	n/a	52	To	65	65	6	6	-	-	-	6	-	-	-	6	-	-	-	6	-	-	-	NA	-	-	-	
NCA26A	OED	55	n/a	n/a	n/a	n/a	44	To	54	55	1	1	-	-	-	1	-	-	-	1	-	-	-	NA	-	-	-	NA	-	-	-	
NCA26A	OME	55	55	55	55	55	72	To	81	81	1	-	-	-	1	-	-	1	-	NA	-	-	-	NA	-	-	-	NA	-	-	-	
NCA26A	OOA	65	65	65	n/a	n/a	47	To	59	60	3	3	-	-	-	3	-	-	-	3	-	-	-	NA	-	-	-	NA	-	-	-	
NCA26A	OOP	60	60	60	n/a	n/a	47	To	59	60	1	1	-	-	-	1	-	-	-	NA	-	-	-	NA	-	-	-	NA	-	-	-	
NCA26A	OPW	55	55	n/a	n/a	n/a	45	To	56	56	4	3	1	-	-	3	1	-	-	4	-	-	-	NA	-	-	-	NA	-	-	-	
NCA26A	RES	66	61	58	50	60	89	To	>90	>90	115	111	3	-	1	110	4	1	-	108	5	2	-	80	29	5	1	109	5	1	-	
NCA26B	COM	70	70	n/a	n/a	n/a	78	To	86	86	2	-	-	2	-	-	2	-	-	-	2	-	-	-	NA	-	-	-	NA	-	-	-
NCA26B	RES	71	66	67	59	71	77	To	85	85	1	-	-	1	-	-	-	1	-	-	1	-	-	-	-	-	1	-	-	-	-	

Note 1: Based on Typical Upper LAeq(15 min) noise level for Day, Day OOH, Evening and Night assessments and Worst Case LAmax noise level for Sleep Disturbance Assessment. Cell colour corresponds to the following exceedance categories:

- Green** represents the number of receivers compliant with the respective NML.
- Yellow** represents the number of receivers with NML exceedances of 1 to 10 dB.
- Orange** represents the number of receivers with NML exceedances of 11 to 20 dB.
- Red** represents the number of receivers with NML exceedances of greater than 20 dB.

Note 2: Representative of the ongoing level of disturbance experienced by the surrounding sensitive receivers, which caters for the likely variability in the intensity of the works and utilisation rate of the plant and equipment.

Note 3: Representative of the typical worst case level of disturbance experienced by the surrounding sensitive receivers, which caters for likely worst case scenario of the noise intensive equipment located at the closest construction boundary to the receiver with all equipment running.

**MODIFICATION PLUS
APPROVED PROJECT
– ACTIVITY NML
EXCEEDANCES**

Table B3-1 Modification plus Approved Project - Enabling Works – All Works

Receiver		NML					LAeq(15 minute) Typical Range		Worst Case LAmax	Total Number of Receivers in Catchment	Number of Receivers per NML assessment category ¹																				
NCA	Type ⁴	Day	Day OOH	Evening	Night	Sleep Dist	Lower ²	Upper ³			Day	Day OOH			Evening			Night			Sleep Disturbance										
NCA25	COM	70	70	n/a	n/a	n/a	64	To 89	>90	46	37	5	4	-	45	1	-	-	46	-	-	-	NA	-	-	-	NA	-	-	-	
NCA25	IND	75	75	n/a	n/a	n/a	50	To 65	70	1	1	-	-	-	1	-	-	-	1	-	-	-	1	-	-	-	NA	-	-	-	
NCA25	OED	55	n/a	n/a	n/a	n/a	56	To 74	79	5	-	1	4	-	5	-	-	-	5	-	-	-	NA	-	-	-	NA	-	-	-	
NCA25	OOP	60	60	60	n/a	n/a	56	To 73	78	1	-	-	1	-	-	1	-	-	NA	-	-	-	NA	-	-	-	NA	-	-	-	
NCA25	OPW	55	55	n/a	n/a	n/a	51	To 63	68	2	-	2	-	-	-	2	-	-	2	-	-	-	NA	-	-	-	NA	-	-	-	
NCA25	OTH	50	50	50	50	n/a	41	To 54	58	1	-	1	-	-	1	-	-	-	1	-	-	-	NA	-	-	-	NA	-	-	-	
NCA25	RES	68	63	61	57	67	68	To >90	>90	169	122	37	8	2	159	10	-	-	154	15	-	-	121	44	4	-	156	12	1	-	
NCA26A	COM	70	70	n/a	n/a	n/a	78	To >90	>90	91	59	27	3	2	79	10	1	1	91	-	-	-	NA	-	-	-	NA	-	-	-	
NCA26A	IND	75	75	n/a	n/a	n/a	65	To 80	84	6	3	3	-	-	6	-	-	-	6	-	-	-	6	-	-	-	NA	-	-	-	
NCA26A	OED	55	n/a	n/a	n/a	n/a	52	To 66	71	1	-	-	1	-	1	-	-	-	1	-	-	-	NA	-	-	-	NA	-	-	-	
NCA26A	OME	55	55	55	55	55	81	To 89	>90	1	-	-	-	1	-	-	-	1	NA	-	-	-	NA	-	-	-	NA	-	-	-	
NCA26A	OOA	65	65	65	n/a	n/a	58	To 76	80	3	-	2	1	-	3	-	-	-	3	-	-	-	NA	-	-	-	NA	-	-	-	
NCA26A	OOP	60	60	60	n/a	n/a	57	To 75	80	1	-	-	1	-	-	1	-	-	NA	-	-	-	NA	-	-	-	NA	-	-	-	
NCA26A	OPW	55	55	n/a	n/a	n/a	55	To 75	80	4	1	1	1	1	2	2	-	-	4	-	-	-	NA	-	-	-	NA	-	-	-	
NCA26A	RES	66	61	58	50	60	>90	To >90	>90	115	103	9	1	2	103	7	3	2	94	16	2	3	62	38	10	5	81	28	3	3	
NCA26B	COM	70	70	n/a	n/a	n/a	86	To >90	>90	2	-	-	-	2	-	2	-	-	2	-	-	-	NA	-	-	-	NA	-	-	-	
NCA26B	RES	71	66	67	59	71	85	To >90	>90	1	-	-	-	1	-	-	1	-	-	-	1	-	-	1	-	-	1	-	-	1	-

Note 1: Based on Typical Upper LAeq(15 min) noise level for Day, Day OOH, Evening and Night assessments and Worst Case LAmax noise level for Sleep Disturbance Assessment. Cell colour corresponds to the following exceedance categories:

- Green** represents the number of receivers compliant with the respective NML.
- Yellow** represents the number of receivers with NML exceedances of 1 to 10 dB.
- Orange** represents the number of receivers with NML exceedances of 11 to 20 dB.
- Red** represents the number of receivers with NML exceedances of greater than 20 dB.

Note 2: Representative of the ongoing level of disturbance experienced by the surrounding sensitive receivers, which caters for the likely variability in the intensity of the works and utilisation rate of the plant and equipment.

Note 3: Representative of the typical worst case level of disturbance experienced by the surrounding sensitive receivers, which caters for likely worst case scenario of the noise intensive equipment located at the closest construction boundary to the receiver with all equipment running.

Table B3-2 Modification plus Approved Project - Enabling Works – Support Works Only

Receiver		NML					LAeq(15 minute) Typical Range			Worst Case LAmax	Total Number of Receivers in Catchment	Number of Receivers per NML assessment category¹															
NCA	Type⁴	Day	Day OOH	Evening	Night	Sleep Dist	Lower²	Upper³				Day	Day OOH			Evening			Night			Sleep Disturbance					
NCA25	COM	70	70	n/a	n/a	n/a	58	To	82	84	46	42	3	1	-	46	-	-	-	46	-	-	-	NA	-	-	-
NCA25	IND	75	75	n/a	n/a	n/a	43	To	58	60	1	1	-	-	-	1	-	-	-	1	-	-	-	1	-	-	-
NCA25	OED	55	n/a	n/a	n/a	n/a	52	To	67	70	5	1	2	2	-	5	-	-	-	5	-	-	-	NA	-	-	-
NCA25	OOP	60	60	60	n/a	n/a	49	To	66	68	1	-	1	-	-	1	-	-	-	NA	-	-	-	NA	-	-	-
NCA25	OPW	55	55	n/a	n/a	n/a	47	To	56	61	2	1	1	-	-	2	-	-	-	2	-	-	-	NA	-	-	-
NCA25	OTH	50	50	50	50	n/a	34	To	47	51	1	1	-	-	-	1	-	-	-	1	-	-	-	NA	-	-	-
NCA25	RES	68	63	61	57	67	68	To	>90	>90	169	147	19	2	1	167	2	-	-	166	3	-	-	160	8	1	-
NCA26A	COM	70	70	n/a	n/a	n/a	74	To	>90	>90	91	84	3	2	2	89	1	-	1	91	-	-	-	NA	-	-	-
NCA26A	IND	75	75	n/a	n/a	n/a	61	To	73	75	6	6	-	-	-	6	-	-	-	6	-	-	-	6	-	-	-
NCA26A	OED	55	n/a	n/a	n/a	n/a	48	To	59	61	1	-	1	-	-	1	-	-	-	1	-	-	-	NA	-	-	-
NCA26A	OME	55	55	55	55	55	77	To	87	>90	1	-	-	-	1	-	-	1	-	NA	-	-	-	NA	-	-	-
NCA26A	OOA	65	65	65	n/a	n/a	54	To	69	71	3	2	1	-	-	3	-	-	-	3	-	-	-	NA	-	-	-
NCA26A	OOP	60	60	60	n/a	n/a	53	To	68	70	1	-	1	-	-	1	-	-	-	NA	-	-	-	NA	-	-	-
NCA26A	OPW	55	55	n/a	n/a	n/a	51	To	68	71	4	2	1	1	-	3	1	-	-	4	-	-	-	NA	-	-	-
NCA26A	RES	66	61	58	50	60	>90	To	>90	>90	115	110	2	1	2	110	2	3	-	109	3	3	-	90	20	2	3
NCA26B	COM	70	70	n/a	n/a	n/a	83	To	>90	>90	2	-	-	-	2	-	2	-	-	2	-	-	-	NA	-	-	-
NCA26B	RES	71	66	67	59	71	82	To	>90	>90	1	-	-	-	1	-	1	-	-	-	1	-	-	-	-	1	-

Note 1: Based on Typical Upper LAeq(15 min) noise level for Day, Day OOH, Evening and Night assessments and Worst Case LAmax noise level for Sleep Disturbance Assessment. Cell colour corresponds to the following exceedance categories:

Green represents the number of receivers compliant with the respective NML.

Yellow represents the number of receivers with NML exceedances of 1 to 10 dB.

Orange represents the number of receivers with NML exceedances of 11 to 20 dB.

Red represents the number of receivers with NML exceedances of greater than 20 dB.

Note 2: Representative of the ongoing level of disturbance experienced by the surrounding sensitive receivers, which caters for the likely variability in the intensity of the works and utilisation rate of the plant and equipment.

Note 3: Representative of the typical worst case level of disturbance experienced by the surrounding sensitive receivers, which caters for likely worst case scenario of the noise intensive equipment located at the closest construction boundary to the receiver with all equipment running.

Table B3-3 Modification plus Approved Project - Earthworks – All Works

Receiver		NML					LAeq(15 minute) Typical Range			Worst Case LAmax	Total Number of Receivers in Catchment	Number of Receivers per NML assessment category ¹														
NCA	Type ⁴	Day	Day OOH	Evening	Night	Sleep Dist	Lower ² Upper ³					Day	Day OOH			Evening			Night			Sleep Disturbance				
NCA25	COM	70	70	n/a	n/a	n/a	77	To	89	>90	46	39	4	3	-	-	-	-	-	-	-	-	-	-		
NCA25	IND	75	75	n/a	n/a	n/a	53	To	65	70	1	1	-	-	-	-	-	-	-	-	-	-	-			
NCA25	OED	55	n/a	n/a	n/a	n/a	53	To	70	76	5	-	2	3	-	-	-	-	-	-	-	-	-			
NCA25	OOP	60	60	60	n/a	n/a	62	To	73	78	1	-	-	1	-	-	-	-	-	-	-	-	-			
NCA25	OPW	55	55	n/a	n/a	n/a	49	To	60	65	2	-	2	-	-	-	-	-	-	-	-	-	-			
NCA25	OTH	50	50	50	50	n/a	42	To	54	59	1	-	1	-	-	-	-	-	-	-	-	-	-			
NCA25	RES	68	63	61	57	67	68	To	>90	>90	169	138	27	3	1	-	-	-	-	-	-	-	-			
NCA26A	COM	70	70	n/a	n/a	n/a	75	To	87	>90	91	63	24	4	-	-	-	-	-	-	-	-	-			
NCA26A	IND	75	75	n/a	n/a	n/a	62	To	75	81	6	5	1	-	-	-	-	-	-	-	-	-	-			
NCA26A	OED	55	n/a	n/a	n/a	n/a	49	To	62	68	1	-	1	-	-	-	-	-	-	-	-	-	-			
NCA26A	OME	55	55	55	55	55	78	To	90	>90	1	-	-	-	1	-	-	-	-	-	-	-	-			
NCA26A	OOA	65	65	65	n/a	n/a	56	To	71	77	3	1	2	-	-	-	-	-	-	-	-	-	-			
NCA26A	OOP	60	60	60	n/a	n/a	55	To	70	77	1	-	-	1	-	-	-	-	-	-	-	-	-			
NCA26A	OPW	55	55	n/a	n/a	n/a	52	To	71	77	4	2	1	1	-	-	-	-	-	-	-	-	-			
NCA26A	RES	66	61	58	50	60	>90	To	>90	>90	115	104	8	2	1	-	-	-	-	-	-	-	-			
NCA26B	COM	70	70	n/a	n/a	n/a	84	To	>90	>90	2	-	-	-	2	-	-	-	-	-	-	-	-			
NCA26B	RES	71	66	67	59	71	83	To	>90	>90	1	-	-	-	1	-	-	-	-	-	-	-	-			

Note 1: Based on Typical Upper LAeq(15 min) noise level for Day, Day OOH, Evening and Night assessments and Worst Case LAmax noise level for Sleep Disturbance Assessment. Cell colour corresponds to the following exceedance categories:

- Green** represents the number of receivers compliant with the respective NML.
- Yellow** represents the number of receivers with NML exceedances of 1 to 10 dB.
- Orange** represents the number of receivers with NML exceedances of 11 to 20 dB.
- Red** represents the number of receivers with NML exceedances of greater than 20 dB.

Note 2: Representative of the ongoing level of disturbance experienced by the surrounding sensitive receivers, which caters for the likely variability in the intensity of the works and utilisation rate of the plant and equipment.

Note 3: Representative of the typical worst case level of disturbance experienced by the surrounding sensitive receivers, which caters for likely worst case scenario of the noise intensive equipment located at the closest construction boundary to the receiver with all equipment running.

Table B3-4 Modification plus Approved Project - Earthworks - Support Works Only

Receiver		NML					LAeq(15 minute) Typical Range			Worst Case LAmax	Total Number of Receivers in Catchment	Number of Receivers per NML assessment category ¹														
NCA	Type ⁴	Day	Day OOH	Evening	Night	Sleep Dist	Lower ² Upper ³					Day	Day OOH	Evening	Night	Sleep Disturbance										
NCA25	COM	70	70	n/a	n/a	n/a	76	To	80	84	46	42	4	-	-	-	-	-	-	-	-	-	-	-	-	
NCA25	IND	75	75	n/a	n/a	n/a	52	To	56	60	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	
NCA25	OED	55	n/a	n/a	n/a	n/a	52	To	63	64	5	1	4	-	-	-	-	-	-	-	-	-	-	-	-	
NCA25	OOP	60	60	60	n/a	n/a	60	To	64	68	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	
NCA25	OPW	55	55	n/a	n/a	n/a	47	To	52	55	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	
NCA25	OTH	50	50	50	50	n/a	41	To	45	48	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	
NCA25	RES	68	63	61	57	67	68	To	90	>90	169	161	6	1	1	-	-	-	-	-	-	-	-	-	-	
NCA26A	COM	70	70	n/a	n/a	n/a	74	To	78	78	91	87	4	-	-	-	-	-	-	-	-	-	-	-	-	
NCA26A	IND	75	75	n/a	n/a	n/a	61	To	68	69	6	6	-	-	-	-	-	-	-	-	-	-	-	-	-	
NCA26A	OED	55	n/a	n/a	n/a	n/a	48	To	54	56	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	
NCA26A	OME	55	55	55	55	55	77	To	81	81	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	
NCA26A	OOA	65	65	65	n/a	n/a	54	To	64	65	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	
NCA26A	OOP	60	60	60	n/a	n/a	53	To	63	64	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	
NCA26A	OPW	55	55	n/a	n/a	n/a	51	To	64	65	4	2	2	-	-	-	-	-	-	-	-	-	-	-	-	
NCA26A	RES	66	61	58	50	60	>90	To	>90	>90	115	112	2	-	1	-	-	-	-	-	-	-	-	-	-	
NCA26B	COM	70	70	n/a	n/a	n/a	82	To	86	87	2	-	-	2	-	-	-	-	-	-	-	-	-	-	-	
NCA26B	RES	71	66	67	59	71	81	To	85	86	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	

Note 1: Based on Typical Upper LAeq(15 min) noise level for Day, Day OOH, Evening and Night assessments and Worst Case LAmax noise level for Sleep Disturbance Assessment. Cell colour corresponds to the following exceedance categories:

Green represents the number of receivers compliant with the respective NML.

Yellow represents the number of receivers with NML exceedances of 1 to 10 dB.

Orange represents the number of receivers with NML exceedances of 11 to 20 dB.

Red represents the number of receivers with NML exceedances of greater than 20 dB.

Note 2: Representative of the ongoing level of disturbance experienced by the surrounding sensitive receivers, which caters for the likely variability in the intensity of the works and utilisation rate of the plant and equipment.

Note 3: Representative of the typical worst case level of disturbance experienced by the surrounding sensitive receivers, which caters for likely worst case scenario of the noise intensive equipment located at the closest construction boundary to the receiver with all equipment running.

Table B3-5 Modification plus Approved Project - Excavation Works – All Works

Receiver		NML					LAeq(15 minute) Typical Range			Worst Case L _A max	Total Number of Receivers in Catchment	Number of Receivers per NML assessment category ¹																			
NCA	Type ⁴	Day	Day OOH	Evening	Night	Sleep Dist	Lower ² Upper ³					Day	Day OOH			Evening			Night			Sleep Disturbance									
NCA25	COM	70	70	n/a	n/a	n/a	73	To	89	>90	46	44	1	1	-	44	1	1	-	46	-	-	-	NA	-	-	-	NA	-	-	-
NCA25	IND	75	75	n/a	n/a	n/a	49	To	65	69	1	1	-	-	-	1	-	-	-	1	-	-	-	1	-	-	-	NA	-	-	-
NCA25	OED	55	n/a	n/a	n/a	n/a	55	To	64	69	5	-	5	-	-	5	-	-	-	5	-	-	-	NA	-	-	-	NA	-	-	-
NCA25	OOP	60	60	60	n/a	n/a	58	To	73	78	1	-	-	1	-	-	-	1	-	NA	-	-	-	NA	-	-	-	NA	-	-	-
NCA25	OPW	55	55	n/a	n/a	n/a	51	To	60	65	2	-	2	-	-	-	2	-	-	2	-	-	-	NA	-	-	-	NA	-	-	-
NCA25	OTH	50	50	50	50	n/a	38	To	53	58	1	-	1	-	-	-	1	-	-	-	1	-	-	NA	-	-	-	NA	-	-	-
NCA25	RES	68	63	61	57	67	68	To	73	79	169	165	4	-	-	155	14	-	-	144	23	2	-	110	54	5	-	150	17	2	-
NCA26A	COM	70	70	n/a	n/a	n/a	71	To	87	>90	91	66	22	3	-	67	24	-	-	91	-	-	-	NA	-	-	-	NA	-	-	-
NCA26A	IND	75	75	n/a	n/a	n/a	61	To	73	78	6	6	-	-	-	6	-	-	-	6	-	-	-	6	-	-	-	NA	-	-	-
NCA26A	OED	55	n/a	n/a	n/a	n/a	45	To	61	65	1	-	1	-	-	1	-	-	-	1	-	-	-	NA	-	-	-	NA	-	-	-
NCA26A	OME	55	55	55	55	55	74	To	89	>90	1	-	-	-	1	-	-	-	1	NA	-	-	-	NA	-	-	-	NA	-	-	-
NCA26A	OOA	65	65	65	n/a	n/a	55	To	67	72	3	2	1	-	-	2	1	-	-	2	1	-	-	NA	-	-	-	NA	-	-	-
NCA26A	OOP	60	60	60	n/a	n/a	56	To	66	71	1	-	1	-	-	-	1	-	-	NA	-	-	-	NA	-	-	-	NA	-	-	-
NCA26A	OPW	55	55	n/a	n/a	n/a	54	To	64	69	4	2	2	-	-	2	2	-	-	4	-	-	-	NA	-	-	-	NA	-	-	-
NCA26A	RES	66	61	58	50	60	>90	To	>90	>90	115	104	8	2	1	90	19	5	1	75	32	7	1	52	34	22	7	68	35	9	3
NCA26B	COM	70	70	n/a	n/a	n/a	80	To	>90	>90	2	-	-	-	2	-	-	2	-	2	-	-	-	NA	-	-	-	NA	-	-	-
NCA26B	RES	71	66	67	59	71	79	To	>90	>90	1	-	-	-	1	-	-	-	1	-	-	1	-	-	-	1	-	-	-	1	-

Note 1: Based on Typical Upper LAeq(15 min) noise level for Day, Day OOH, Evening and Night assessments and Worst Case LAmax noise level for Sleep Disturbance Assessment. Cell colour corresponds to the following exceedance categories:

- Green** represents the number of receivers compliant with the respective NML.
- Yellow** represents the number of receivers with NML exceedances of 1 to 10 dB.
- Orange** represents the number of receivers with NML exceedances of 11 to 20 dB.
- Red** represents the number of receivers with NML exceedances of greater than 20 dB.

Note 2: Representative of the ongoing level of disturbance experienced by the surrounding sensitive receivers, which caters for the likely variability in the intensity of the works and utilisation rate of the plant and equipment.

Note 3: Representative of the typical worst case level of disturbance experienced by the surrounding sensitive receivers, which caters for likely worst case scenario of the noise intensive equipment located at the closest construction boundary to the receiver with all equipment running.

Table B3-6 Modification plus Approved Project - Excavation Works - Support Works Only

Receiver		NML					LAeq(15 minute) Typical Range		Worst Case L _A max	Total Number of Receivers in Catchment	Number of Receivers per NML assessment category ¹				
NCA	Type ⁴	Day	Day OOH	Evening	Night	Sleep Dist	Lower ²	Upper ³			Day	Day OOH	Evening	Night	Sleep Disturbance
NCA25	COM	70	70	n/a	n/a	n/a	72	To 76	78	46	45	1	-	-	NA - - -
NCA25	IND	75	75	n/a	n/a	n/a	48	To 52	54	1	1	-	-	-	NA - - -
NCA25	OED	55	n/a	n/a	n/a	n/a	48	To 54	56	5	5	-	-	-	NA - - -
NCA25	OOP	60	60	60	n/a	n/a	56	To 60	62	1	-	1	-	-	NA - - -
NCA25	OPW	55	55	n/a	n/a	n/a	44	To 52	54	2	2	-	-	-	NA - - -
NCA25	OTH	50	50	50	50	n/a	37	To 42	44	1	1	-	-	-	NA - - -
NCA25	RES	68	63	61	57	67	68	To 68	79	169	168	1	-	-	165 3 1 - 167 1 1 -
NCA26A	COM	70	70	n/a	n/a	n/a	71	To 80	81	91	87	4	-	-	NA - - -
NCA26A	IND	75	75	n/a	n/a	n/a	57	To 61	64	6	6	-	-	-	NA - - -
NCA26A	OED	55	n/a	n/a	n/a	n/a	44	To 48	50	1	1	-	-	-	NA - - -
NCA26A	OME	55	55	55	55	55	74	To 82	84	1	-	-	-	1	NA - - -
NCA26A	OOA	65	65	65	n/a	n/a	50	To 54	57	3	3	-	-	-	NA - - -
NCA26A	OOP	60	60	60	n/a	n/a	49	To 53	56	1	1	-	-	-	NA - - -
NCA26A	OPW	55	55	n/a	n/a	n/a	47	To 51	54	4	4	-	-	-	NA - - -
NCA26A	RES	66	61	58	50	60	>90	To >90	>90	115	112	1	1	1	110 2 2 1 109 3 2 1 94 16 2 3 109 3 2 1
NCA26B	COM	70	70	n/a	n/a	n/a	80	To 88	90	2	-	-	2	-	NA - - -
NCA26B	RES	71	66	67	59	71	79	To 87	89	1	-	-	1	-	- - - 1 -

Note 1: Based on Typical Upper LAeq(15 min) noise level for Day, Day OOH, Evening and Night assessments and Worst Case L_Amax noise level for Sleep Disturbance Assessment. Cell colour corresponds to the following exceedance categories:

- Green** represents the number of receivers compliant with the respective NML.
- Yellow** represents the number of receivers with NML exceedances of 1 to 10 dB.
- Orange** represents the number of receivers with NML exceedances of 11 to 20 dB.
- Red** represents the number of receivers with NML exceedances of greater than 20 dB.

Note 2: Representative of the ongoing level of disturbance experienced by the surrounding sensitive receivers, which caters for the likely variability in the intensity of the works and utilisation rate of the plant and equipment.

Note 3: Representative of the typical worst case level of disturbance experienced by the surrounding sensitive receivers, which caters for likely worst case scenario of the noise intensive equipment located at the closest construction boundary to the receiver with all equipment running.

Table B3-7 Modification plus Approved Project - Construction Works – All Works

Receiver		NML					LAeq(15 minute) Typical Range			Worst Case LAmax	Total Number of Receivers in Catchment	Number of Receivers per NML assessment category ¹																		
NCA	Type ⁴	Day	Day OOH	Evening	Night	Sleep Dist	Lower ²	Upper ³	Day			Day OOH	Evening	Night	Sleep Disturbance															
NCA25	COM	70	70	n/a	n/a	n/a	73	To 82	82	46	40	5	1	-	43	2	1	-	46	-	-	-	NA	-	-	-	NA	-	-	-
NCA25	IND	75	75	n/a	n/a	n/a	49	To 56	56	1	1	-	-	-	1	-	-	-	1	-	-	-	1	-	-	-	NA	-	-	-
NCA25	OED	55	n/a	n/a	n/a	n/a	49	To 62	64	5	1	4	-	-	5	-	-	-	5	-	-	-	NA	-	-	-	NA	-	-	-
NCA25	OOP	60	60	60	n/a	n/a	58	To 64	64	1	-	1	-	-	1	-	-	-	NA	-	-	-	NA	-	-	-	NA	-	-	-
NCA25	OPW	55	55	n/a	n/a	n/a	45	To 55	55	2	2	-	-	-	2	-	-	-	2	-	-	-	NA	-	-	-	NA	-	-	-
NCA25	OTH	50	50	50	50	n/a	38	To 45	45	1	1	-	-	-	1	-	-	-	1	-	-	-	NA	-	-	-	NA	-	-	-
NCA25	RES	68	63	61	57	67	68	To 89	>90	169	160	5	3	1	165	2	2	-	164	3	2	-	152	13	2	2	164	2	3	-
NCA26A	COM	70	70	n/a	n/a	n/a	69	To 78	78	91	85	6	-	-	91	-	-	-	91	-	-	-	NA	-	-	-	NA	-	-	-
NCA26A	IND	75	75	n/a	n/a	n/a	58	To 67	69	6	6	-	-	-	6	-	-	-	6	-	-	-	6	-	-	-	NA	-	-	-
NCA26A	OED	55	n/a	n/a	n/a	n/a	45	To 54	56	1	1	-	-	-	1	-	-	-	1	-	-	-	NA	-	-	-	NA	-	-	-
NCA26A	OME	55	55	55	55	55	72	To 81	81	1	-	-	-	1	-	-	1	-	NA	-	-	-	NA	-	-	-	NA	-	-	-
NCA26A	OOA	65	65	65	n/a	n/a	52	To 63	65	3	3	-	-	-	3	-	-	-	3	-	-	-	NA	-	-	-	NA	-	-	-
NCA26A	OOP	60	60	60	n/a	n/a	51	To 62	65	1	-	1	-	-	1	-	-	-	NA	-	-	-	NA	-	-	-	NA	-	-	-
NCA26A	OPW	55	55	n/a	n/a	n/a	48	To 63	65	4	2	2	-	-	3	1	-	-	4	-	-	-	NA	-	-	-	NA	-	-	-
NCA26A	RES	66	61	58	50	60	89	To >90	>90	115	111	3	-	1	110	4	1	-	108	5	2	-	80	29	5	1	109	5	1	-
NCA26B	COM	70	70	n/a	n/a	n/a	78	To 86	86	2	-	-	2	-	-	2	-	-	2	-	-	-	NA	-	-	-	NA	-	-	-
NCA26B	RES	71	66	67	59	71	77	To 85	85	1	-	-	1	-	-	1	-	-	-	1	-	-	-	-	-	1	-	-	-	

Note 1: Based on Typical Upper LAeq(15 min) noise level for Day, Day OOH, Evening and Night assessments and Worst Case L_{Amax} noise level for Sleep Disturbance Assessment. Cell colour corresponds to the following exceedance categories:

- Green** represents the number of receivers compliant with the respective NML.
- Yellow** represents the number of receivers with NML exceedances of 1 to 10 dB.
- Orange** represents the number of receivers with NML exceedances of 11 to 20 dB.
- Red** represents the number of receivers with NML exceedances of greater than 20 dB.

Note 2: Representative of the ongoing level of disturbance experienced by the surrounding sensitive receivers, which caters for the likely variability in the intensity of the works and utilisation rate of the plant and equipment.

Note 3: Representative of the typical worst case level of disturbance experienced by the surrounding sensitive receivers, which caters for likely worst case scenario of the noise intensive equipment located at the closest construction boundary to the receiver with all equipment running.

Table B3-8 Modification plus Approved Project - Construction Works - Support Works Only

Receiver		NML					LAeq(15 minute) Typical Range			Worst Case LAmax	Total Number of Receivers in Catchment	Number of Receivers per NML assessment category ¹																		
NCA	Type ⁴	Day	Day OOH	Evening	Night	Sleep Dist	Lower ²	Upper ³	Day			Day OOH	Evening	Night	Sleep Disturbance															
NCA25	COM	70	70	n/a	n/a	n/a	73	To 82	82	46	40	5	1	-	43	2	1	-	46	-	-	-	NA	-	-	-	NA	-	-	-
NCA25	IND	75	75	n/a	n/a	n/a	49	To 56	56	1	1	-	-	-	1	-	-	-	1	-	-	-	1	-	-	-	NA	-	-	-
NCA25	OED	55	n/a	n/a	n/a	n/a	49	To 62	64	5	1	4	-	-	5	-	-	-	5	-	-	-	NA	-	-	-	NA	-	-	-
NCA25	OOP	60	60	60	n/a	n/a	58	To 64	64	1	-	1	-	-	1	-	-	-	NA	-	-	-	NA	-	-	-	NA	-	-	-
NCA25	OPW	55	55	n/a	n/a	n/a	45	To 55	55	2	2	-	-	-	2	-	-	-	2	-	-	-	NA	-	-	-	NA	-	-	-
NCA25	OTH	50	50	50	50	n/a	38	To 45	45	1	1	-	-	-	1	-	-	-	1	-	-	-	NA	-	-	-	NA	-	-	-
NCA25	RES	68	63	61	57	67	68	To 89	>90	169	160	5	3	1	165	2	2	-	164	3	2	-	152	13	2	2	164	2	3	-
NCA26A	COM	70	70	n/a	n/a	n/a	69	To 78	78	91	85	6	-	-	91	-	-	-	91	-	-	-	NA	-	-	-	NA	-	-	-
NCA26A	IND	75	75	n/a	n/a	n/a	58	To 67	69	6	6	-	-	-	6	-	-	-	6	-	-	-	6	-	-	-	NA	-	-	-
NCA26A	OED	55	n/a	n/a	n/a	n/a	45	To 54	56	1	1	-	-	-	1	-	-	-	1	-	-	-	NA	-	-	-	NA	-	-	-
NCA26A	OME	55	55	55	55	55	72	To 81	81	1	-	-	-	1	-	-	1	-	NA	-	-	-	NA	-	-	-	NA	-	-	-
NCA26A	OOA	65	65	65	n/a	n/a	52	To 63	65	3	3	-	-	-	3	-	-	-	3	-	-	-	NA	-	-	-	NA	-	-	-
NCA26A	OOP	60	60	60	n/a	n/a	51	To 62	65	1	-	1	-	-	1	-	-	-	NA	-	-	-	NA	-	-	-	NA	-	-	-
NCA26A	OPW	55	55	n/a	n/a	n/a	48	To 63	65	4	2	2	-	-	3	1	-	-	4	-	-	-	NA	-	-	-	NA	-	-	-
NCA26A	RES	66	61	58	50	60	89	To >90	>90	115	111	3	-	1	110	4	1	-	108	5	2	-	80	29	5	1	109	5	1	-
NCA26B	COM	70	70	n/a	n/a	n/a	78	To 86	86	2	-	-	2	-	-	2	-	-	2	-	-	-	NA	-	-	-	NA	-	-	-
NCA26B	RES	71	66	67	59	71	77	To 85	85	1	-	-	1	-	-	1	-	-	-	1	-	-	-	-	-	1	-	-	-	

Note 1: Based on Typical Upper LAeq(15 min) noise level for Day, Day OOH, Evening and Night assessments and Worst Case L_{Amax} noise level for Sleep Disturbance Assessment. Cell colour corresponds to the following exceedance categories:

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Note 2: Representative of the ongoing level of disturbance experienced by the surrounding sensitive receivers, which caters for the likely variability in the intensity of the works and utilisation rate of the plant and equipment.

Note 3: Representative of the typical worst case level of disturbance experienced by the surrounding sensitive receivers, which caters for likely worst case scenario of the noise intensive equipment located at the closest construction boundary to the receiver with all equipment running.

APPROVED PROJECT – NML ASSESSMENT MAPS

Noise Catchment Areas

--- NCAs

Construction Areas

Platforms - Intercity Services

Modification Works

Approved Project Works

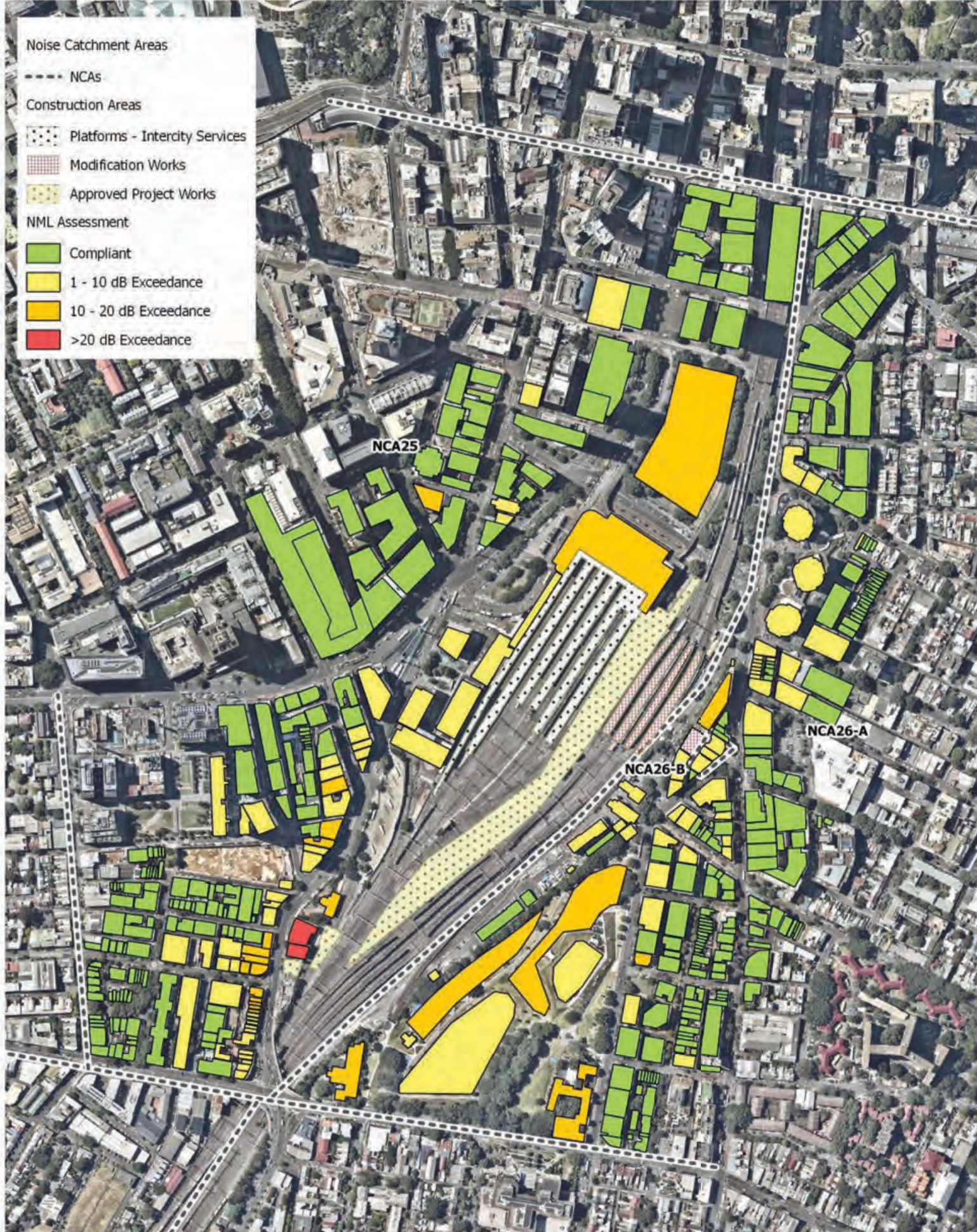
NML Assessment

Compliant

1 - 10 dB Exceedance

10 - 20 dB Exceedance

>20 dB Exceedance



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Projection: NGDA 94 - MGA ZONE 56



0 50 100 150 200 250 m

TINSW

NML Assessment Map
Approved Project

All Enabling Works
Daytime

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SLR Consulting Australia Pty Ltd does not guarantee the accuracy of such information.

Noise Catchment Areas

--- NCAs

Construction Areas

Platforms - Intercity Services

Modification Works

Approved Project Works

NML Assessment

Compliant

1 - 10 dB Exceedance

10 - 20 dB Exceedance

>20 dB Exceedance



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NML Assessment Map
Approved Project

All Enabling Works
Daytime OOH

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Noise Catchment Areas

--- NCAs

Construction Areas

Platforms - Intercity Services

Modification Works

Approved Project Works

NML Assessment

Compliant

1 - 10 dB Exceedance

10 - 20 dB Exceedance

>20 dB Exceedance



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TINSW

NML Assessment Map
Approved Project

All Enabling Works
Evening

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Noise Catchment Areas

--- NCAs

Construction Areas

Platforms - Intercity Services

Modification Works

Approved Project Works

NML Assessment

Compliant

1 - 10 dB Exceedance

10 - 20 dB Exceedance

>20 dB Exceedance



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NML Assessment Map
Approved Project

All Enabling Works
Night-time

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Noise Catchment Areas

--- NCAs

Construction Areas

Platforms - Intercity Services

Modification Works

Approved Project Works

NML Assessment

Compliant

1 - 10 dB Exceedance

10 - 20 dB Exceedance

>20 dB Exceedance



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NML Assessment Map
Approved Project

All Enabling Works
Night-time Sleep Disturbance

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Noise Catchment Areas

--- NCAs

Construction Areas

Platforms - Intercity Services

Modification Works

Approved Project Works

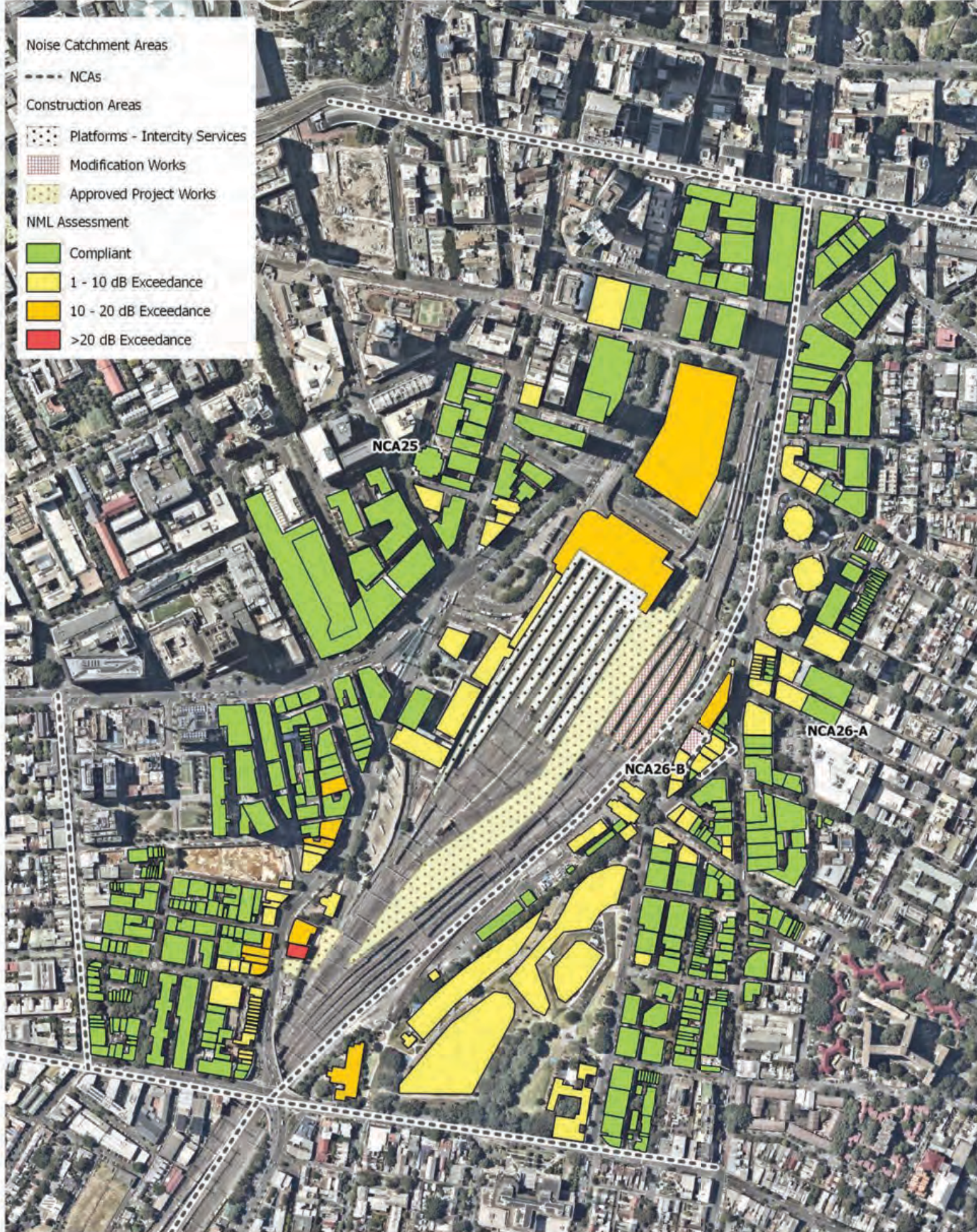
NML Assessment

Compliant

1 - 10 dB Exceedance

10 - 20 dB Exceedance

>20 dB Exceedance



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0 50 100 150 200 250 m

TINSW

NML Assessment Map
Approved Project

All Earthworks
Daytime

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Noise Catchment Areas

--- NCAs

Construction Areas

Platforms - Intercity Services

Modification Works

Approved Project Works

NML Assessment

Compliant

1 - 10 dB Exceedance

10 - 20 dB Exceedance

>20 dB Exceedance



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TNSW

NML Assessment Map
Approved Project

All Earthworks
Daytime OOH

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Noise Catchment Areas

--- NCAs

Construction Areas

Platforms - Intercity Services

Modification Works

Approved Project Works

NML Assessment

Compliant

1 - 10 dB Exceedance

10 - 20 dB Exceedance

>20 dB Exceedance



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NML Assessment Map
Approved Project

All Earthworks
Evening

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Noise Catchment Areas

--- NCAs

Construction Areas

Platforms - Intercity Services

Modification Works

Approved Project Works

NML Assessment

Compliant

1 - 10 dB Exceedance

10 - 20 dB Exceedance

>20 dB Exceedance



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NML Assessment Map
Approved Project

All Earthworks
Night-time

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Noise Catchment Areas

--- NCAs

Construction Areas

Platforms - Intercity Services

Modification Works

Approved Project Works

NML Assessment

Compliant

1 - 10 dB Exceedance

10 - 20 dB Exceedance

>20 dB Exceedance



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Approved Project

All Earthworks
Night-time Sleep Disturbance

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Noise Catchment Areas

--- NCAs

Construction Areas

Platforms - Intercity Services

Modification Works

Approved Project Works

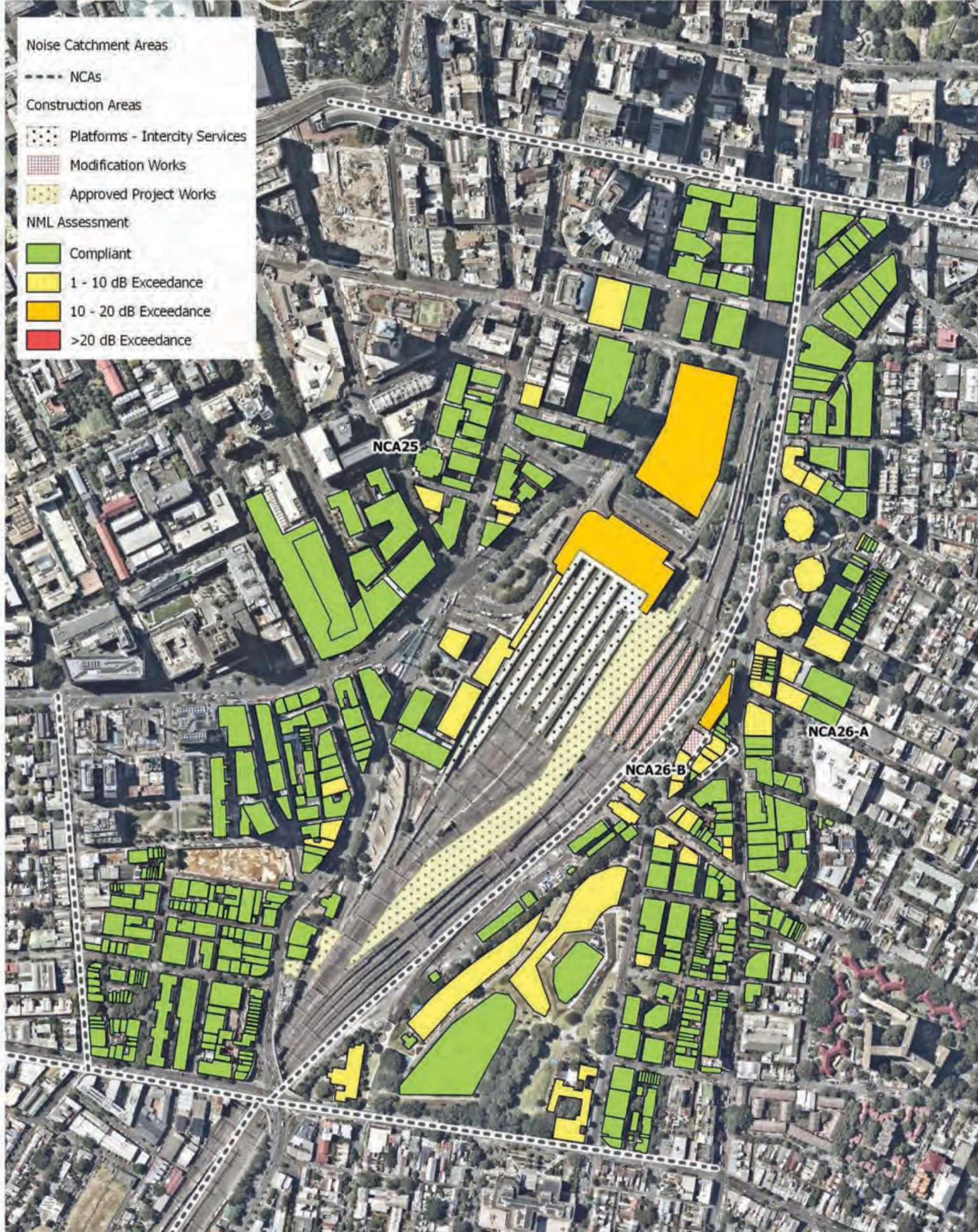
NML Assessment

Compliant

1 - 10 dB Exceedance

10 - 20 dB Exceedance

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TINSW

NML Assessment Map
Approved Project

All Excavation Works
Daytime

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Noise Catchment Areas

--- NCAs

Construction Areas

Platforms - Intercity Services

Modification Works

Approved Project Works

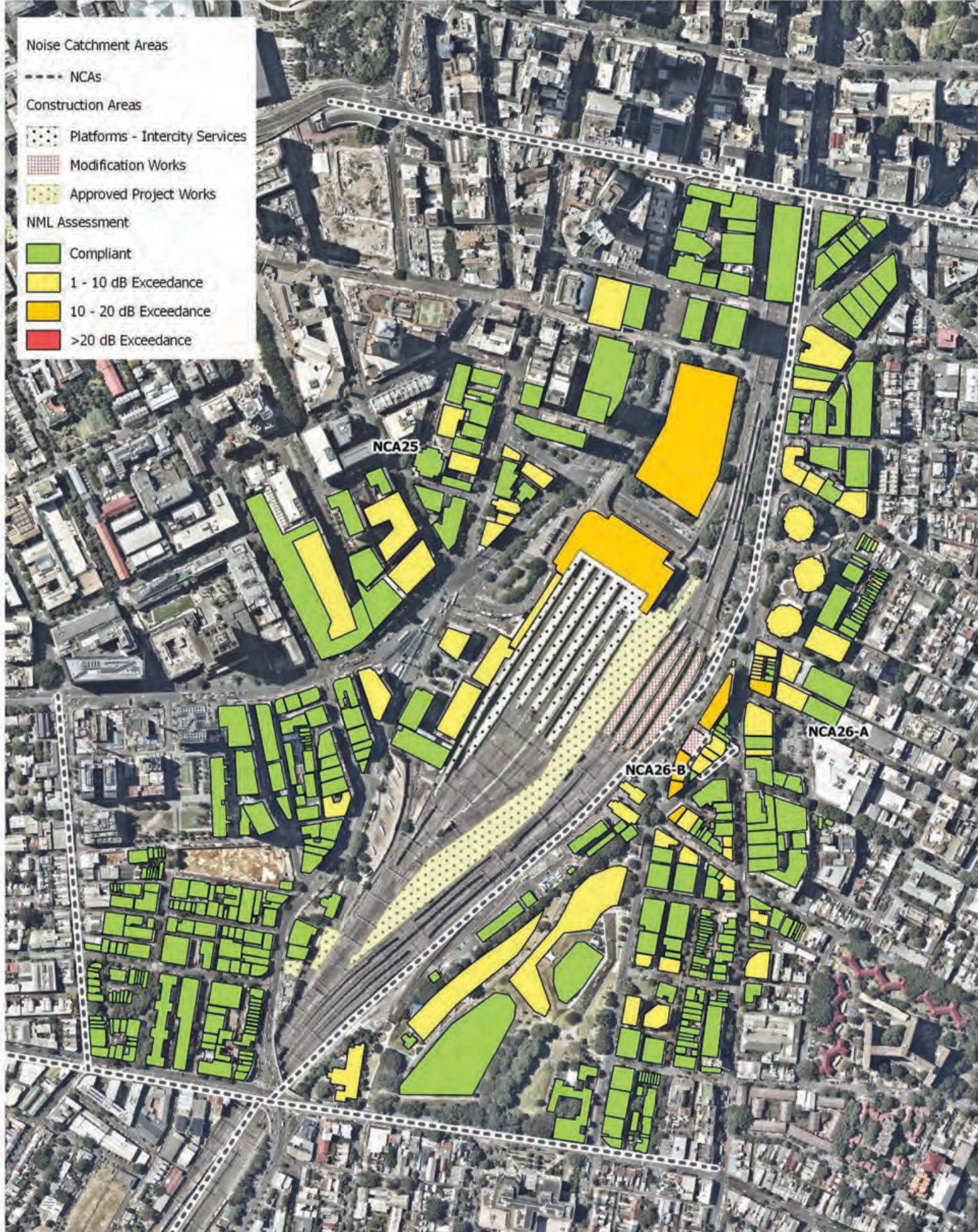
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10 - 20 dB Exceedance

>20 dB Exceedance



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TNSW

NML Assessment Map
Approved Project

All Excavation Works
Daytime OOH

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Noise Catchment Areas

--- NCAs

Construction Areas

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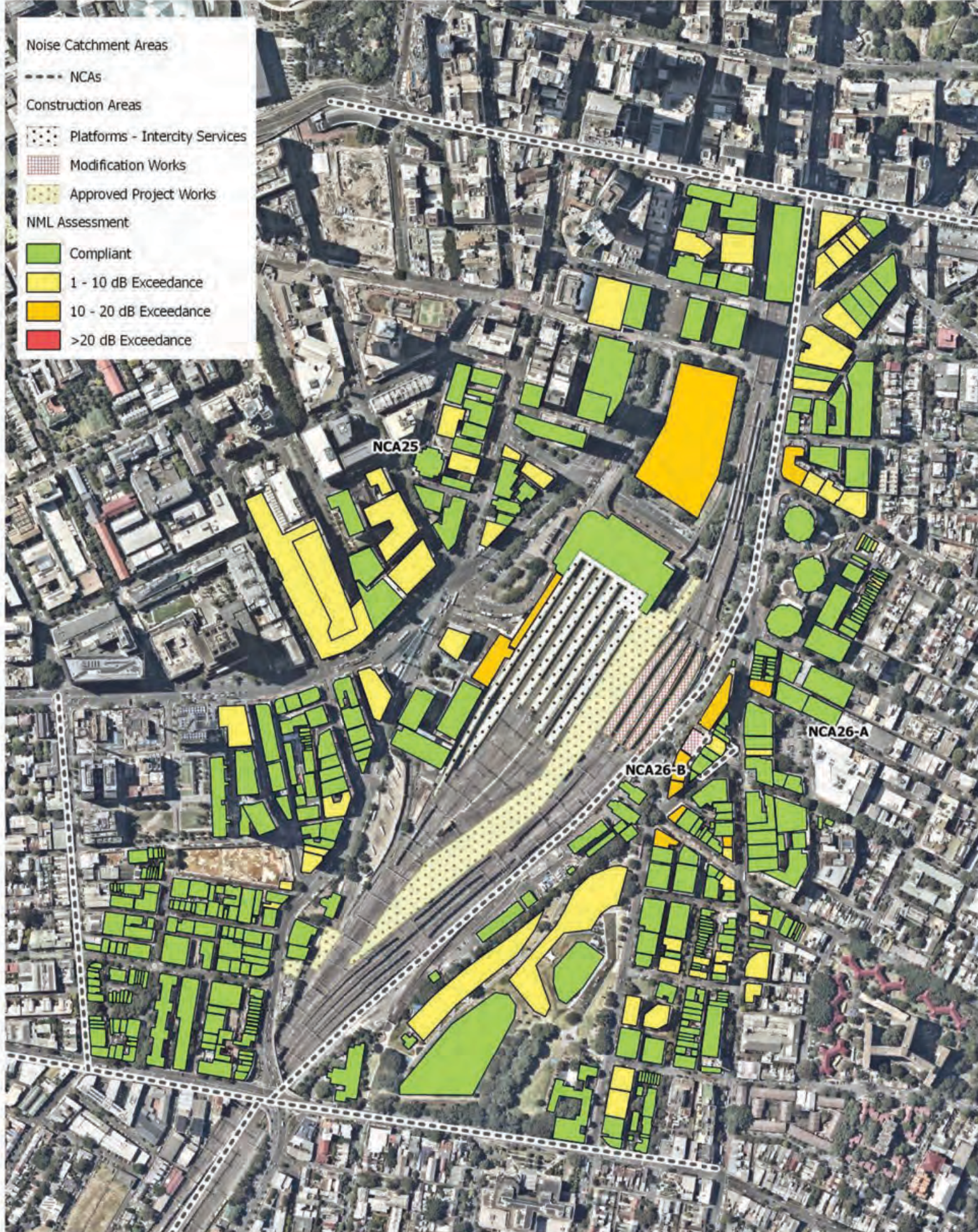
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Compliant

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10 - 20 dB Exceedance

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Approved Project

All Excavation Works
Evening

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Noise Catchment Areas

--- NCAs

Construction Areas

Platforms - Intercity Services

Modification Works

Approved Project Works

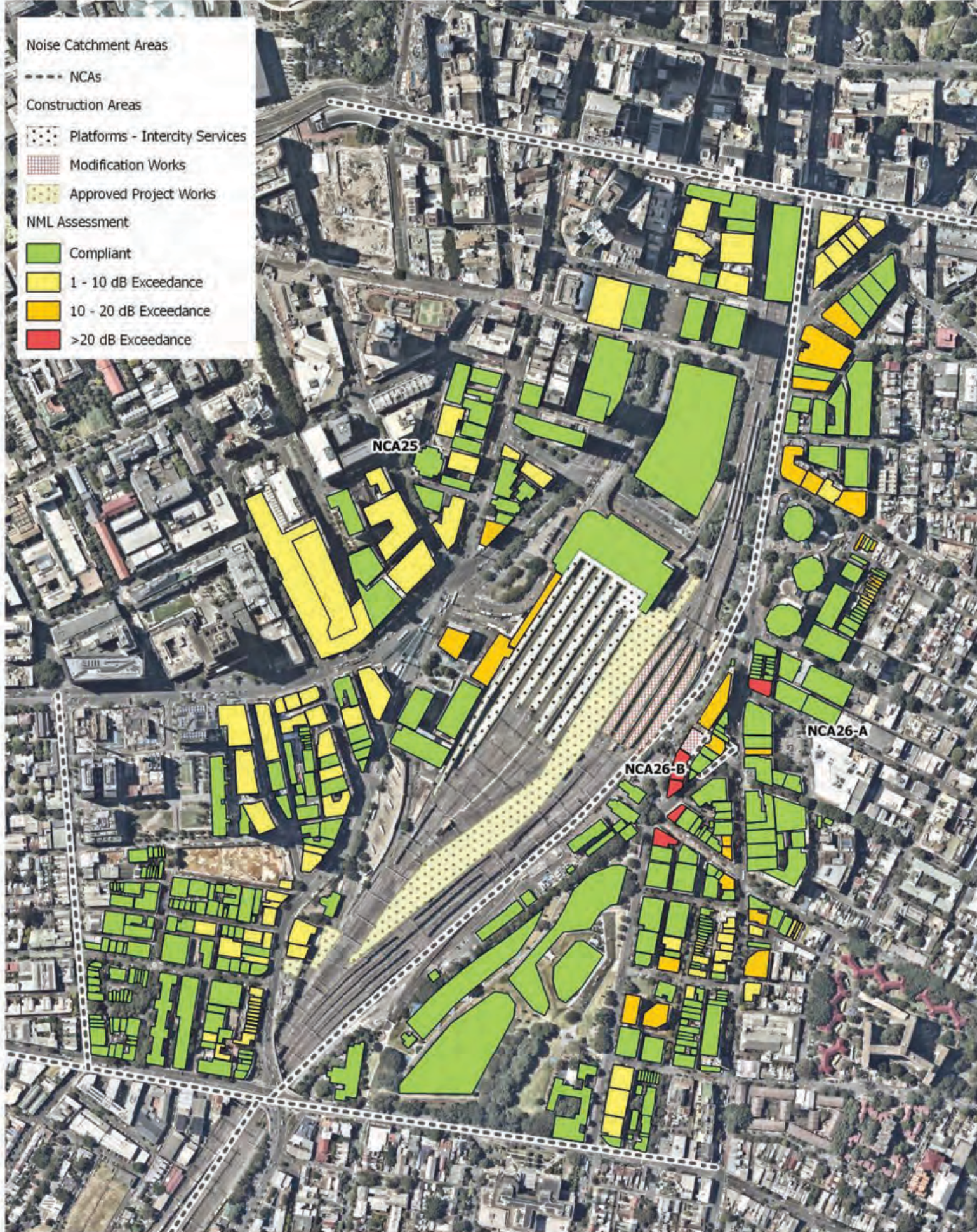
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NML Assessment Map
Approved Project

All Excavation Works
Night-time

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Noise Catchment Areas

--- NCAs

Construction Areas

Platforms - Intercity Services

Modification Works

Approved Project Works

NML Assessment

Compliant

1 - 10 dB Exceedance

10 - 20 dB Exceedance

>20 dB Exceedance



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NML Assessment Map
Approved Project

All Excavation Works
Night-time Sleep Disturbance

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Noise Catchment Areas

--- NCAs

Construction Areas

Platforms - Intercity Services

Modification Works

Approved Project Works

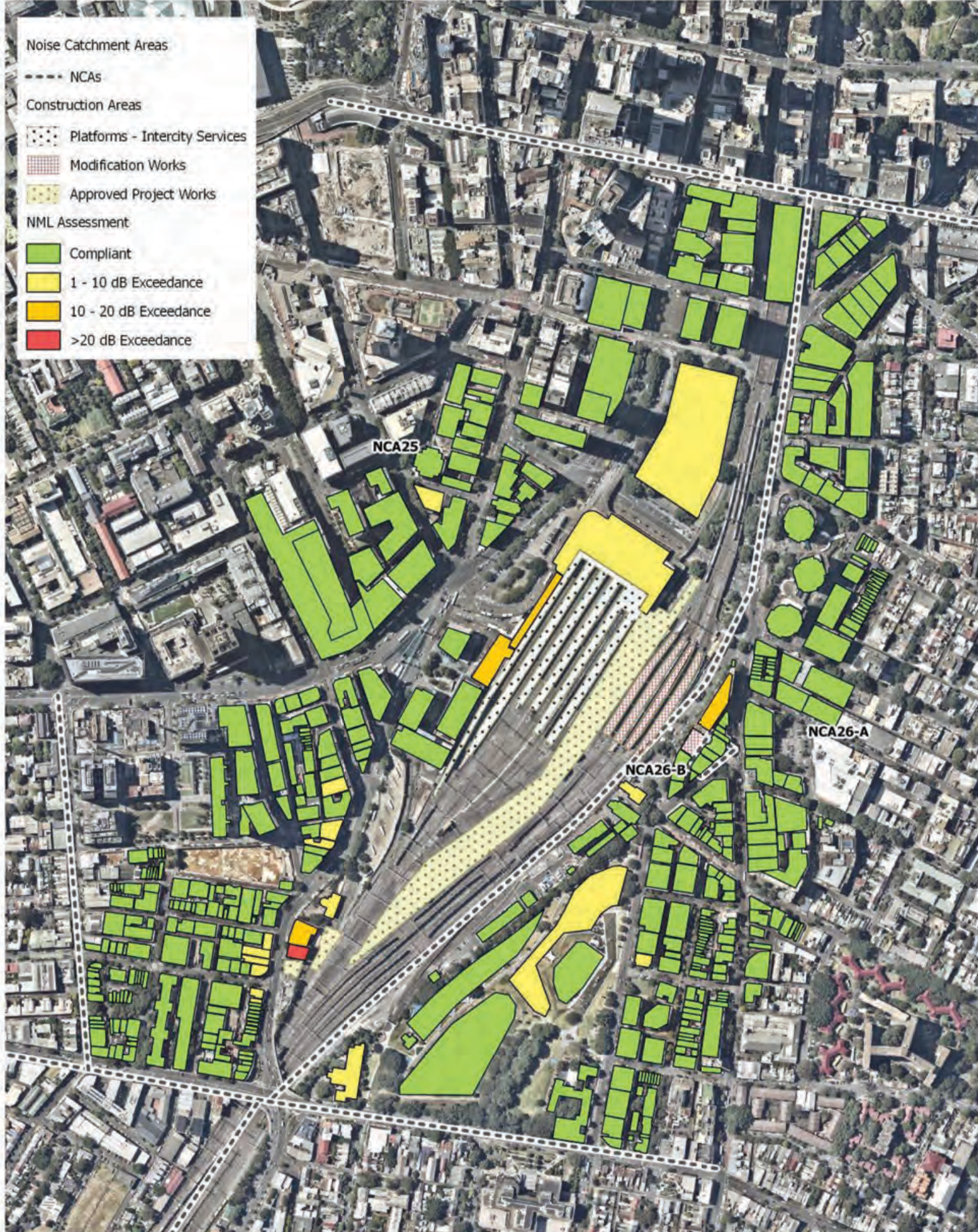
NML Assessment

Compliant

1 - 10 dB Exceedance

10 - 20 dB Exceedance

>20 dB Exceedance



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Sheet Size: @ A4
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0 50 100 150 200 250 m

TINSW

NML Assessment Map
Approved Project

All Construction Works
Daytime

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Noise Catchment Areas

--- NCAs

Construction Areas

Platforms - Intercity Services

Modification Works

Approved Project Works

NML Assessment

Compliant

1 - 10 dB Exceedance

10 - 20 dB Exceedance

>20 dB Exceedance



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0 50 100 150 200 250 m

TNSW

NML Assessment Map
Approved Project

All Construction Works
Daytime OOH

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Noise Catchment Areas

--- NCAs

Construction Areas

Platforms - Intercity Services

Modification Works

Approved Project Works

NML Assessment

Compliant

1 - 10 dB Exceedance

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>20 dB Exceedance



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0 50 100 150 200 250 m

TINSW

NML Assessment Map
Approved Project

All Construction Works
Evening

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Noise Catchment Areas

--- NCAs

Construction Areas

Platforms - Intercity Services

Modification Works

Approved Project Works

NML Assessment

Compliant

1 - 10 dB Exceedance

10 - 20 dB Exceedance

>20 dB Exceedance



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Approved Project

All Construction Works
Night-time

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Noise Catchment Areas

--- NCAs

Construction Areas

Platforms - Intercity Services

Modification Works

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NML Assessment

Compliant

1 - 10 dB Exceedance

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>20 dB Exceedance



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All Construction Works
Night-time Sleep Disturbance

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MODIFICATION – NML ASSESSMENT MAPS

Noise Catchment Areas

--- NCAs

Construction Areas

Platforms - Intercity Services

Modification Works

Approved Project Works

NML Assessment

Compliant

1 - 10 dB Exceedance

10 - 20 dB Exceedance

>20 dB Exceedance



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Date: 01/05/2017
Drawn by: YL
Scale: 1:7,612
Sheet Size: @ A4
Projection: NGDA 94 - MGA ZONE 56



0 50 100 150 200 250 m

TINSW

NML Assessment Map
Modification

All Enabling Works
Daytime

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Noise Catchment Areas

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Construction Areas

Platforms - Intercity Services

Modification Works

Approved Project Works

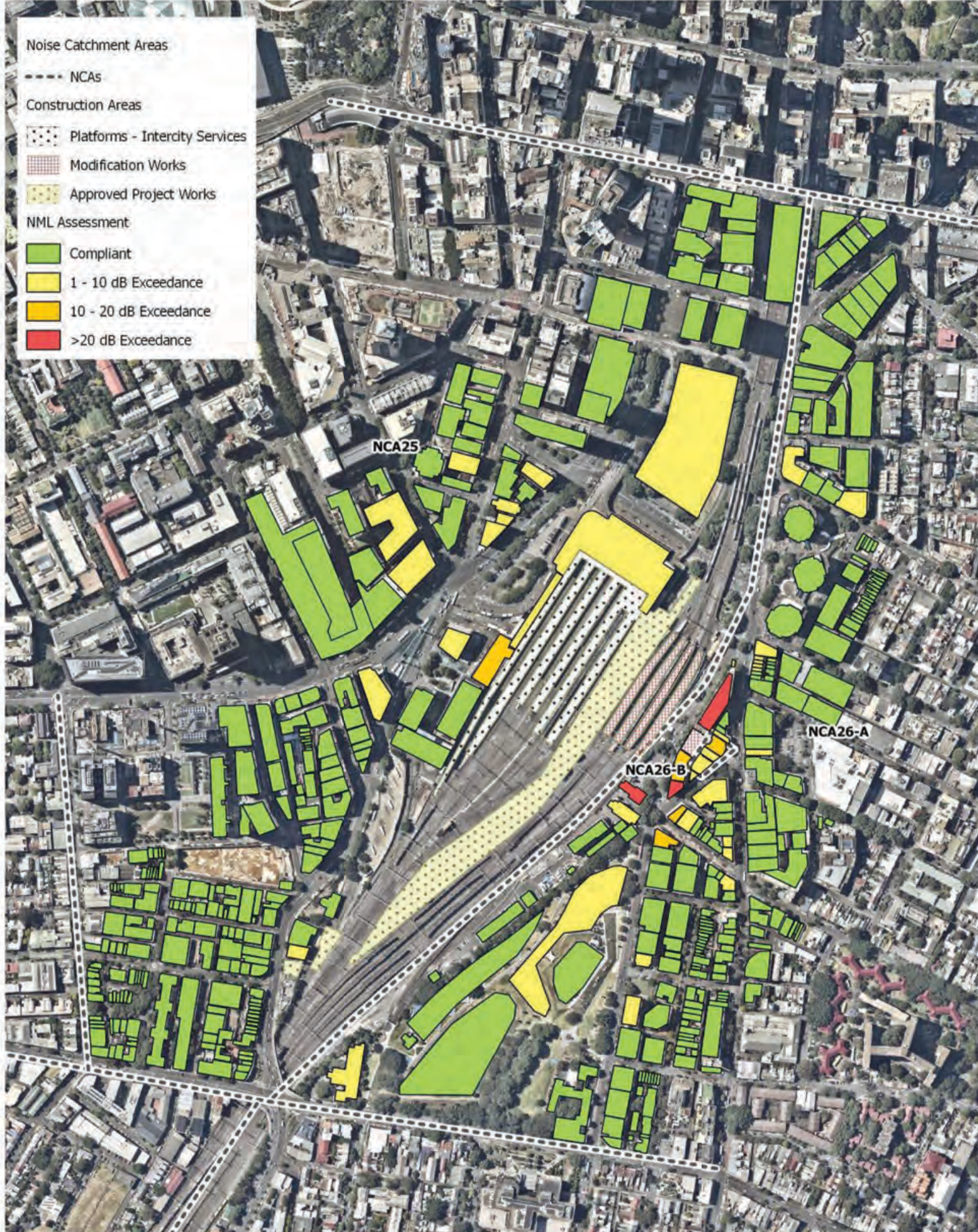
NML Assessment

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NML Assessment Map
Modification

All Enabling Works
Daytime OOH

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Noise Catchment Areas

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Construction Areas

Platforms - Intercity Services

Modification Works

Approved Project Works

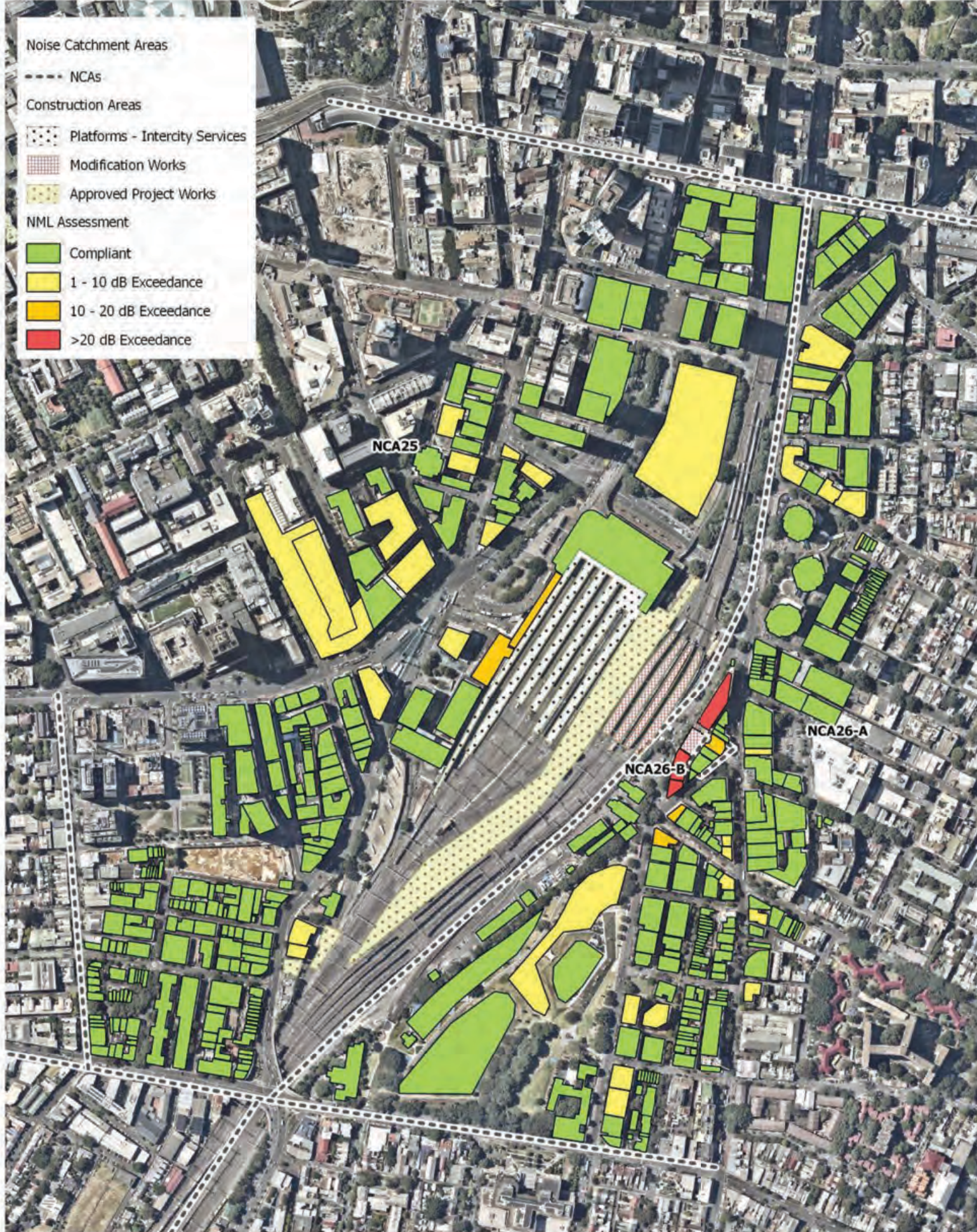
NML Assessment

Compliant

1 - 10 dB Exceedance

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NML Assessment Map
Modification

All Enabling Works
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Modification Works

Approved Project Works

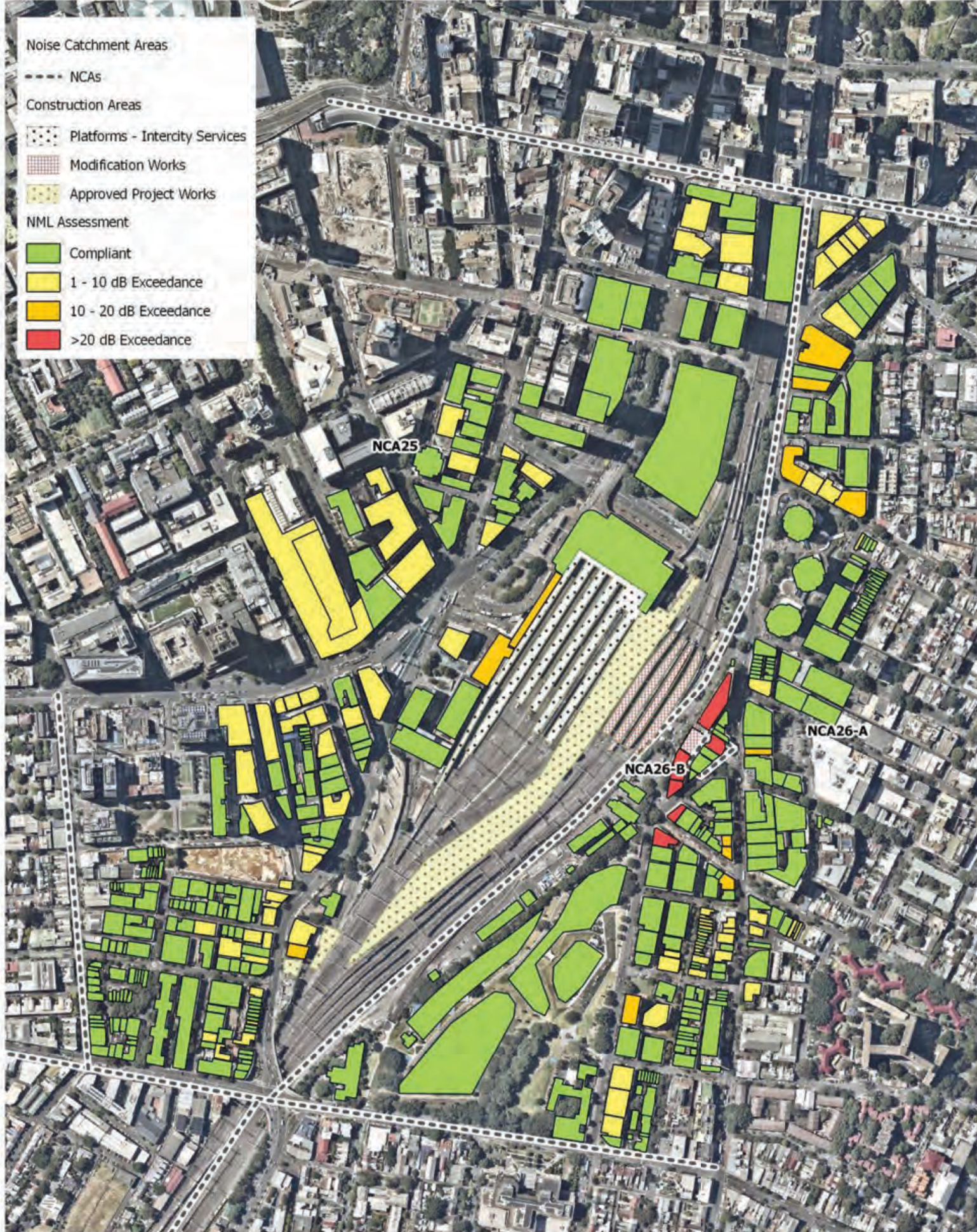
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Modification

All Enabling Works
Night-time

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Modification

All Enabling Works
Night-time Sleep Disturbance

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Noise Catchment Areas

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Construction Areas

Platforms - Intercity Services

Modification Works

Approved Project Works

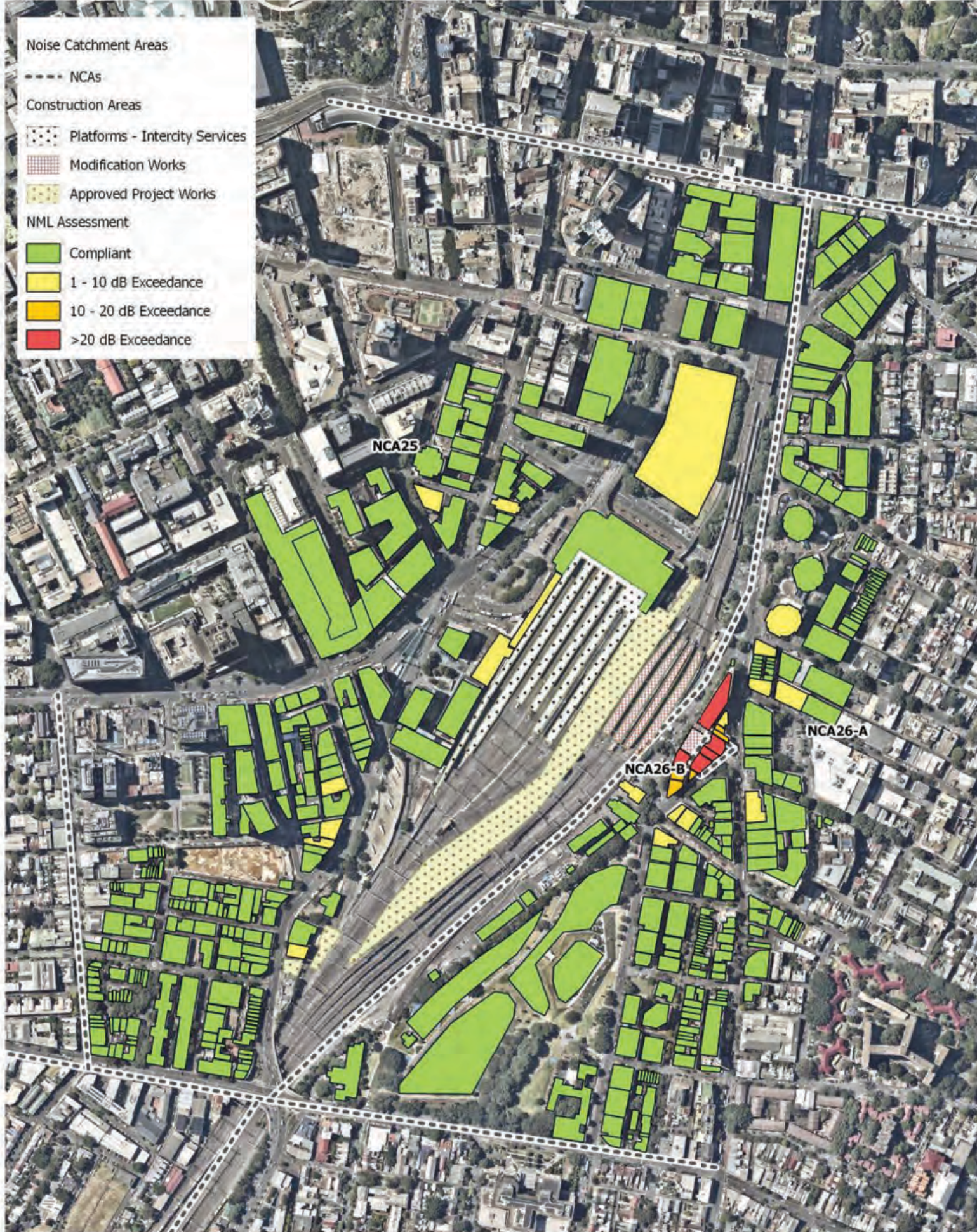
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NML Assessment Map
Modification

All Earthworks
Daytime

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Noise Catchment Areas

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Modification Works

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NML Assessment Map
Modification

All Earthworks
Daytime OOHV

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Noise Catchment Areas

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Construction Areas

Platforms - Intercity Services

Modification Works

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NML Assessment

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NML Assessment Map
Modification

All Earthworks
Evening

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Noise Catchment Areas

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Construction Areas

Platforms - Intercity Services

Modification Works

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All Earthworks
Night-time

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Noise Catchment Areas

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Construction Areas

Platforms - Intercity Services

Modification Works

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Modification

All Earthworks
Night-time Sleep Disturbance

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Noise Catchment Areas

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Construction Areas

Platforms - Intercity Services

Modification Works

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NML Assessment Map
Modification

All Excavation Works
Daytime

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Noise Catchment Areas

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Construction Areas

Platforms - Intercity Services

Modification Works

Approved Project Works

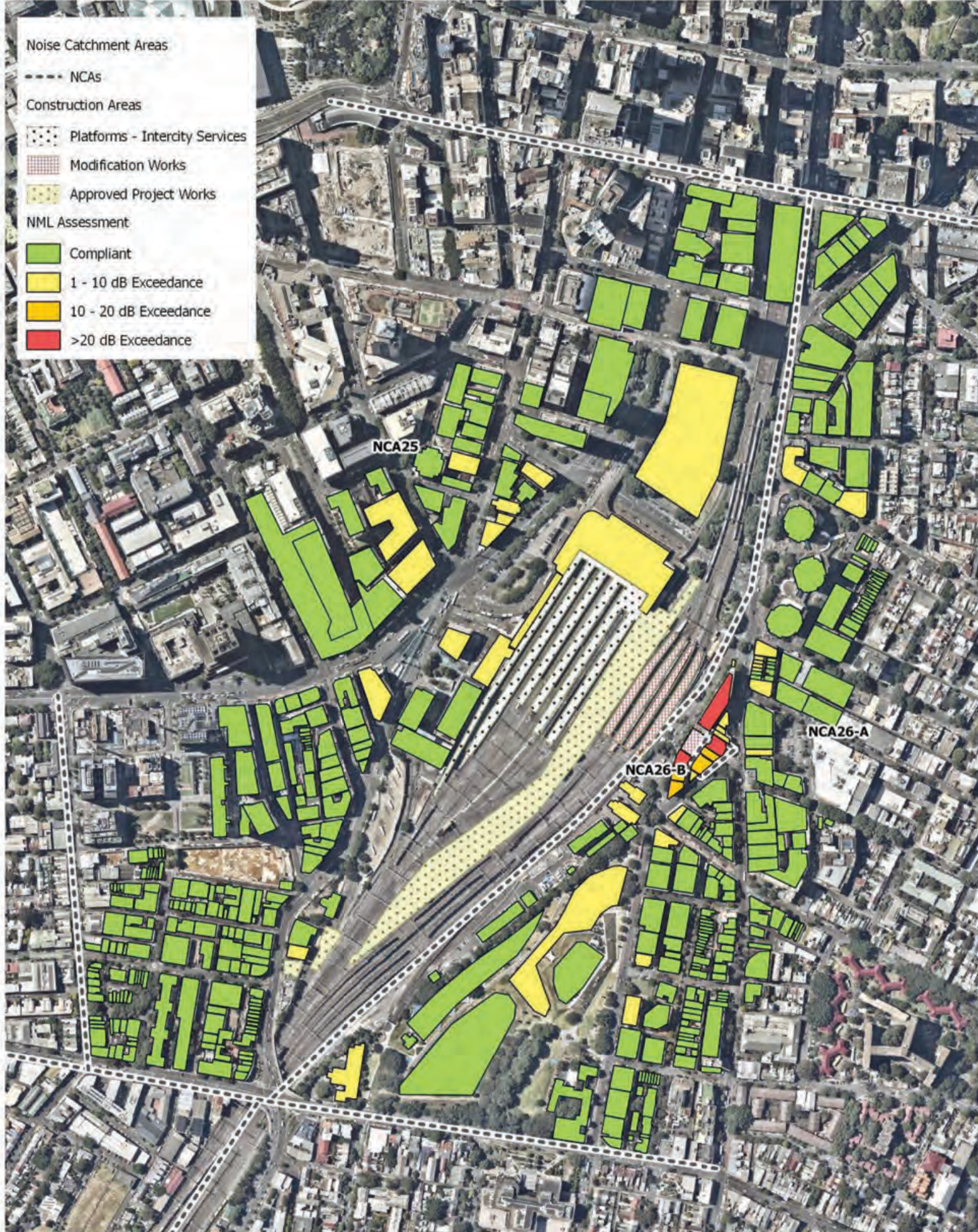
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NML Assessment Map
Modification

All Excavation Works
Daytime OOH

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Noise Catchment Areas

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Construction Areas

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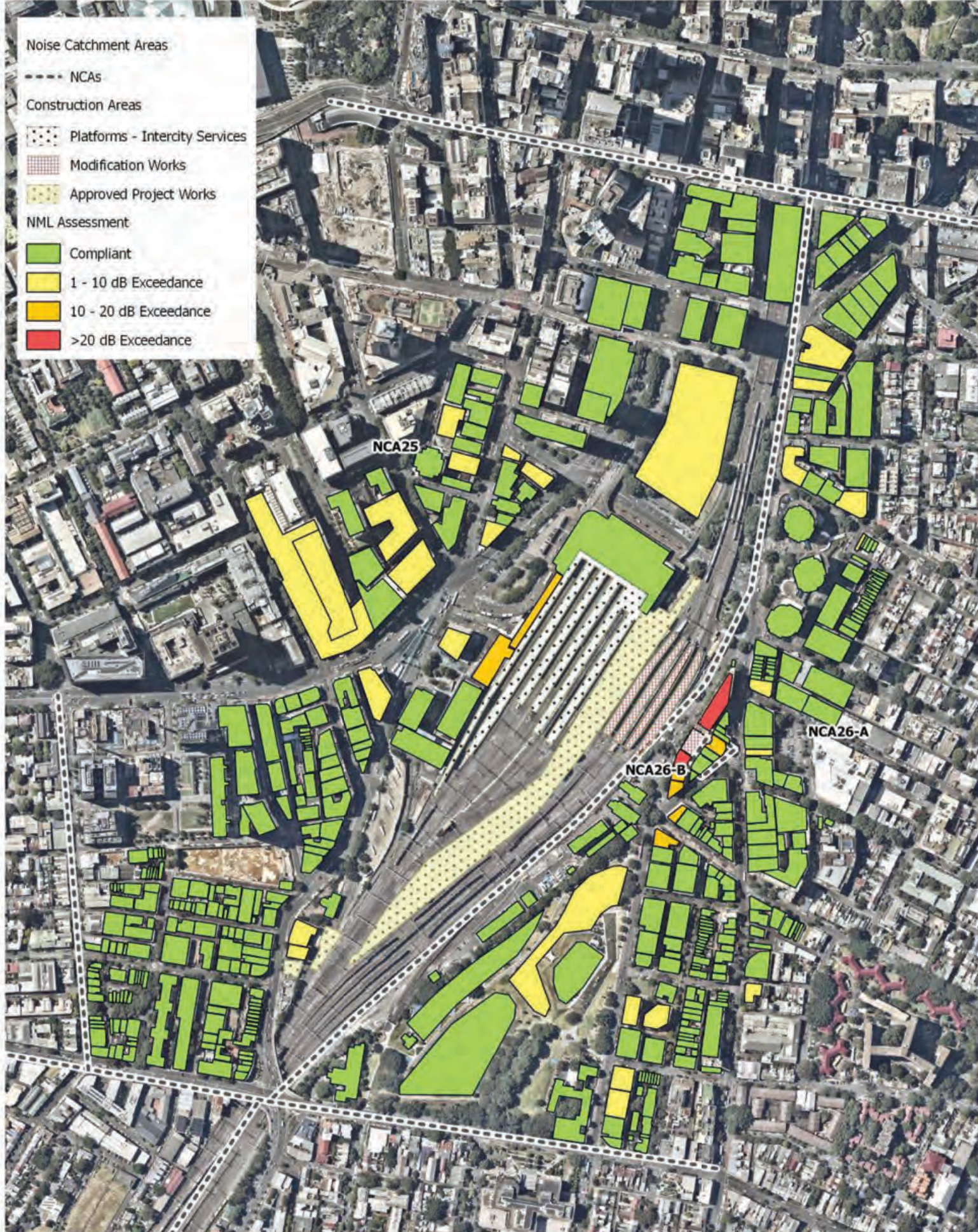
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Modification

All Excavation Works
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Noise Catchment Areas

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Construction Areas

Platforms - Intercity Services

Modification Works

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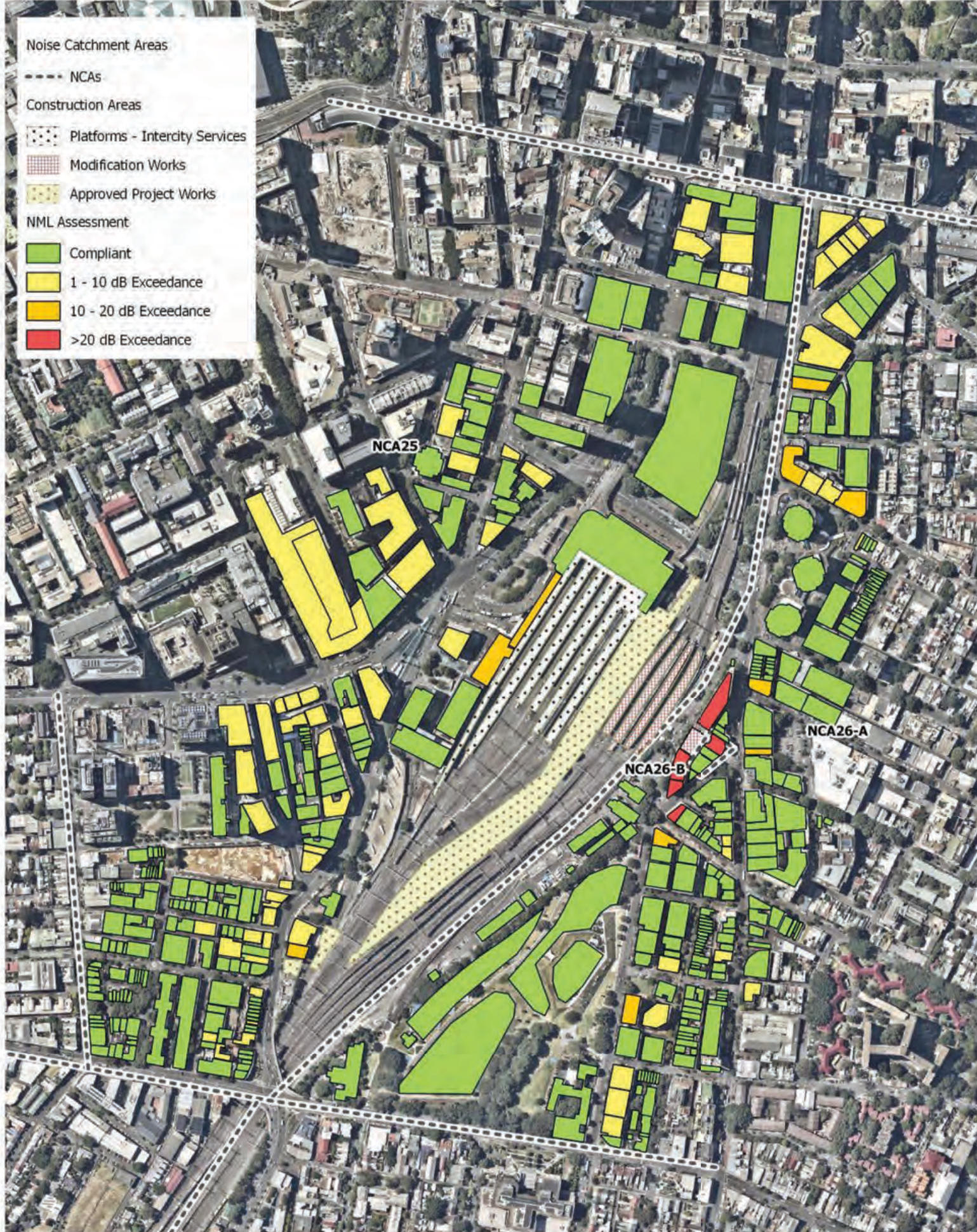
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Modification

All Excavation Works
Night-time

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Modification

All Excavation Works
Night-time Sleep Disturbance

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Noise Catchment Areas

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Construction Areas

Platforms - Intercity Services

Modification Works

Approved Project Works

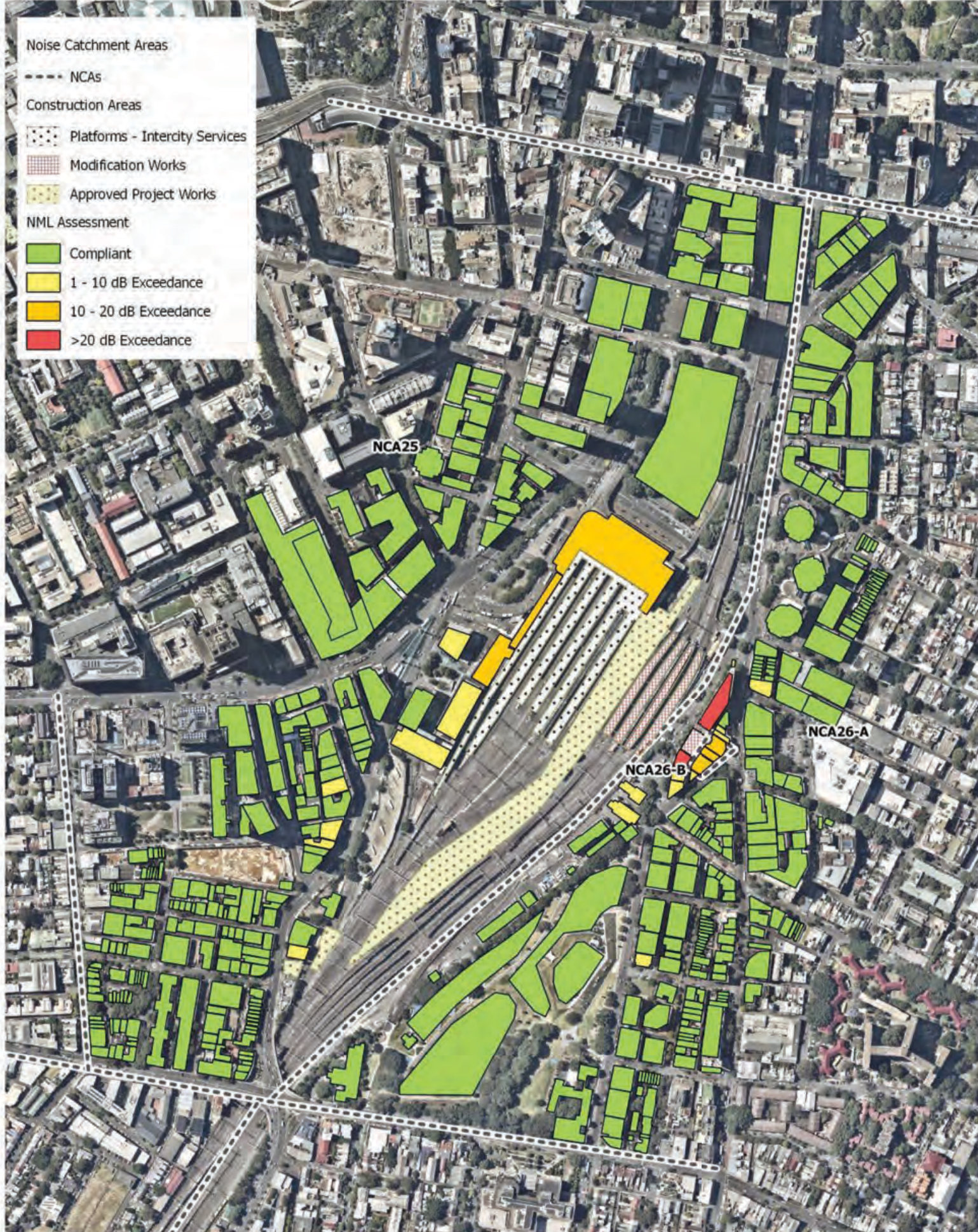
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All Construction Works
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Noise Catchment Areas

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Construction Areas

Platforms - Intercity Services

Modification Works

Approved Project Works

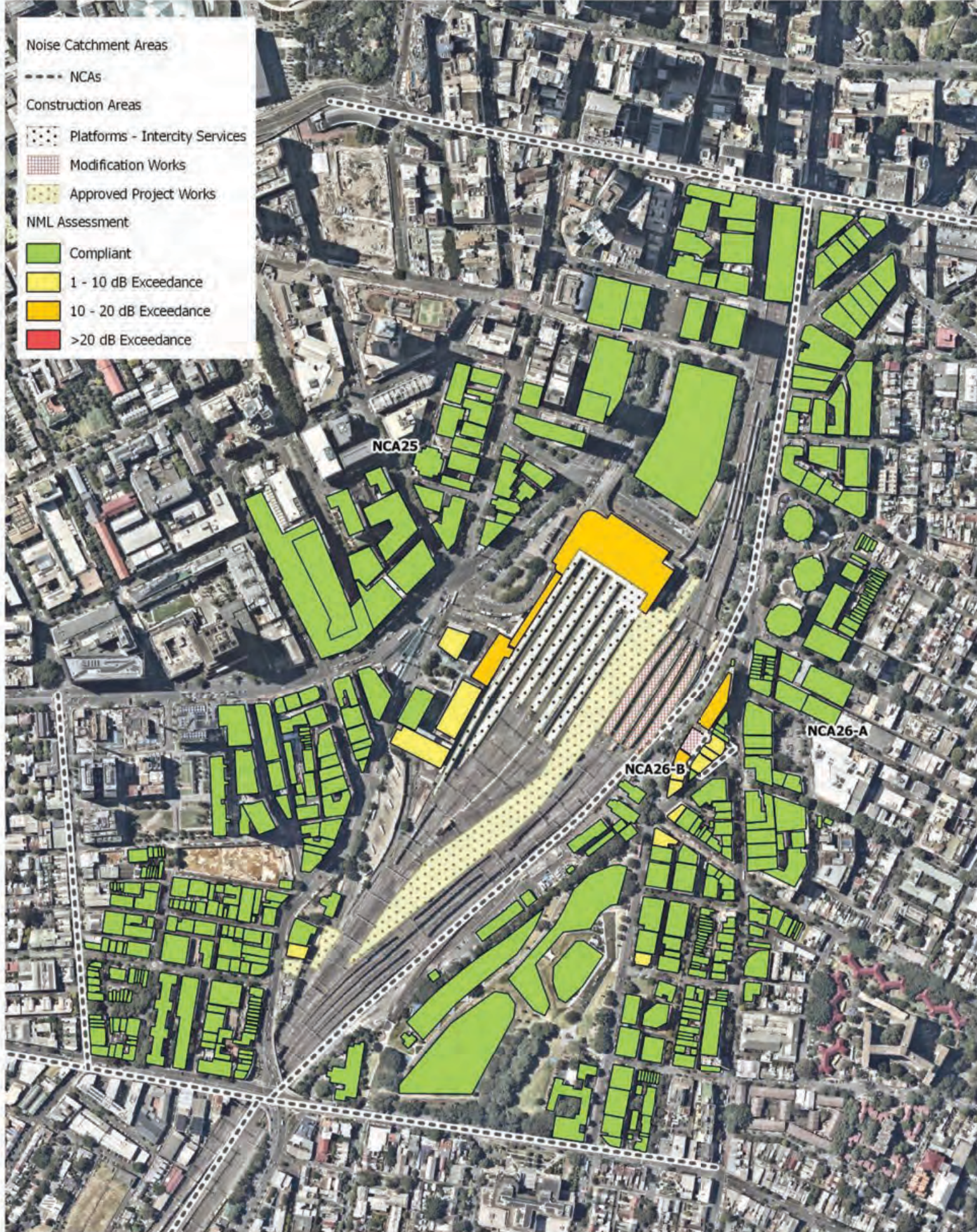
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TNSW

NML Assessment Map
Modification

All Construction Works
Daytime OOH

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Noise Catchment Areas

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Construction Areas

Platforms - Intercity Services

Modification Works

Approved Project Works

NML Assessment

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TINSW

NML Assessment Map
Modification

All Construction Works
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Noise Catchment Areas

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Construction Areas

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Modification Works

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All Construction Works
Night-time

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NML Assessment Map
Modification

All Construction Works
Night-time Sleep Disturbance

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**APPROVED PROJECT
+ MODIFICATION -
NML ASSESSMENT MAPS**

Noise Catchment Areas

--- NCAs

Construction Areas

Platforms - Intercity Services

Modification Works

Approved Project Works

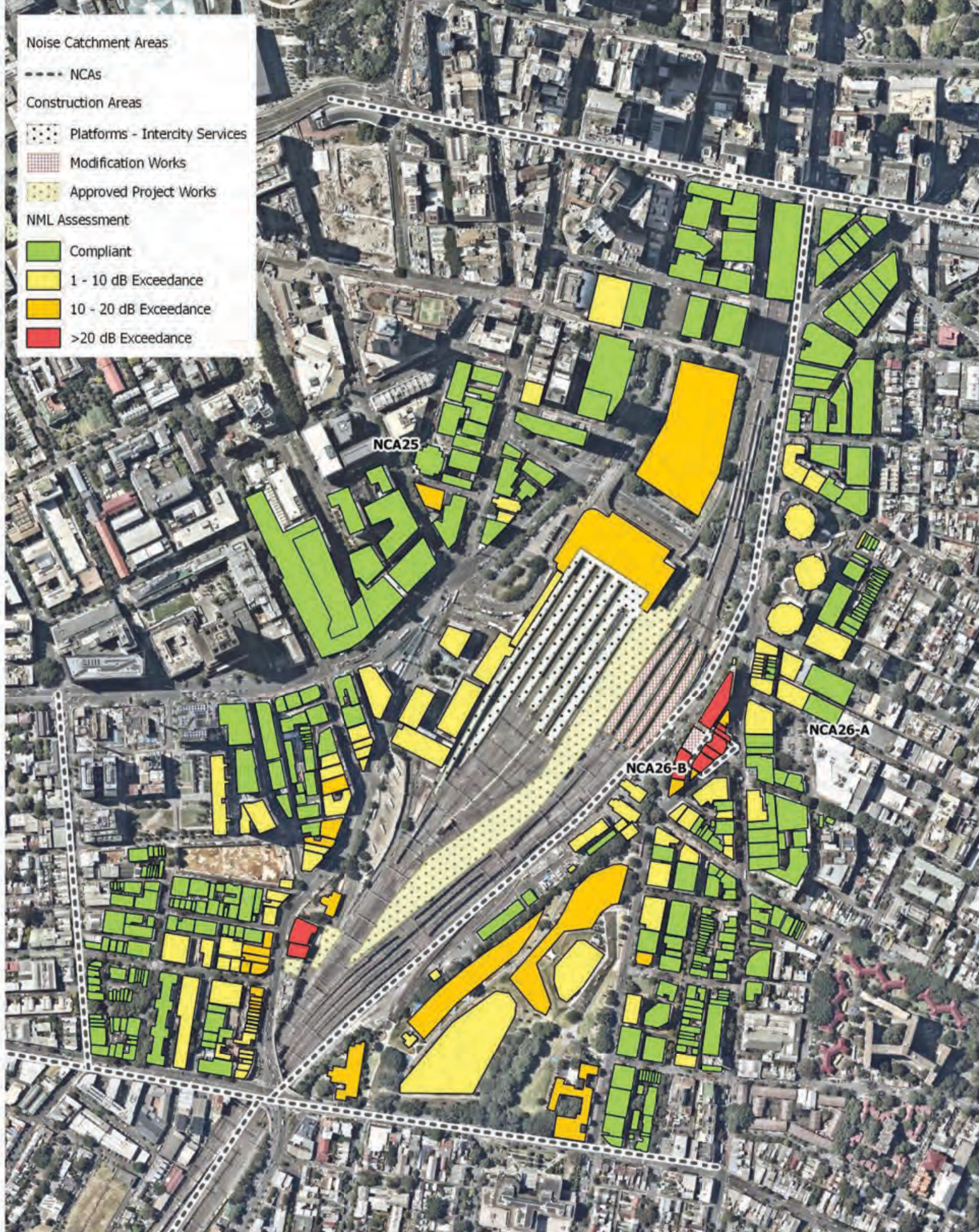
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NML Assessment Map
Approved Project + Modification

All Enabling Works
Daytime

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Noise Catchment Areas

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Construction Areas

Platforms - Intercity Services

Modification Works

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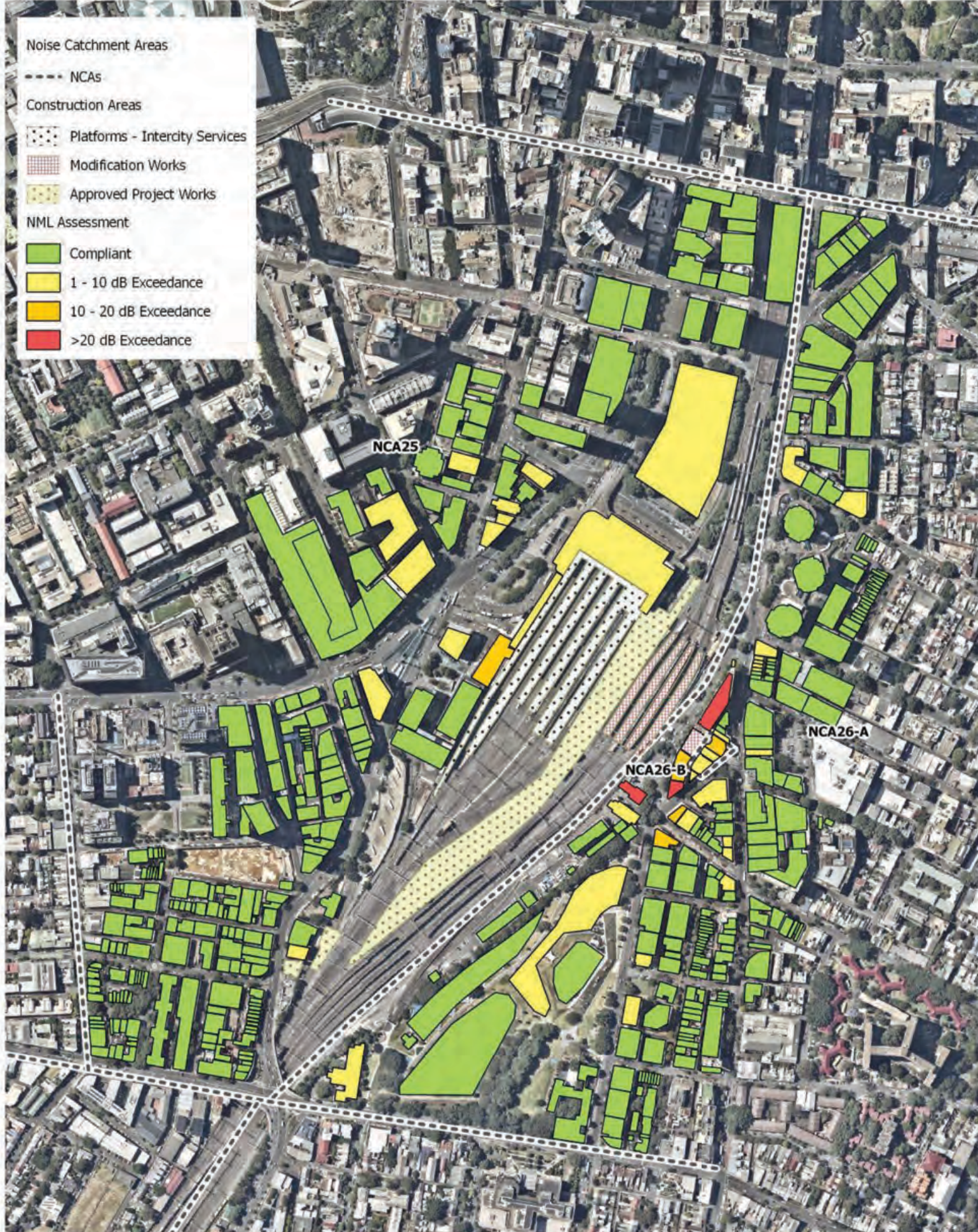
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All Enabling Works
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Noise Catchment Areas

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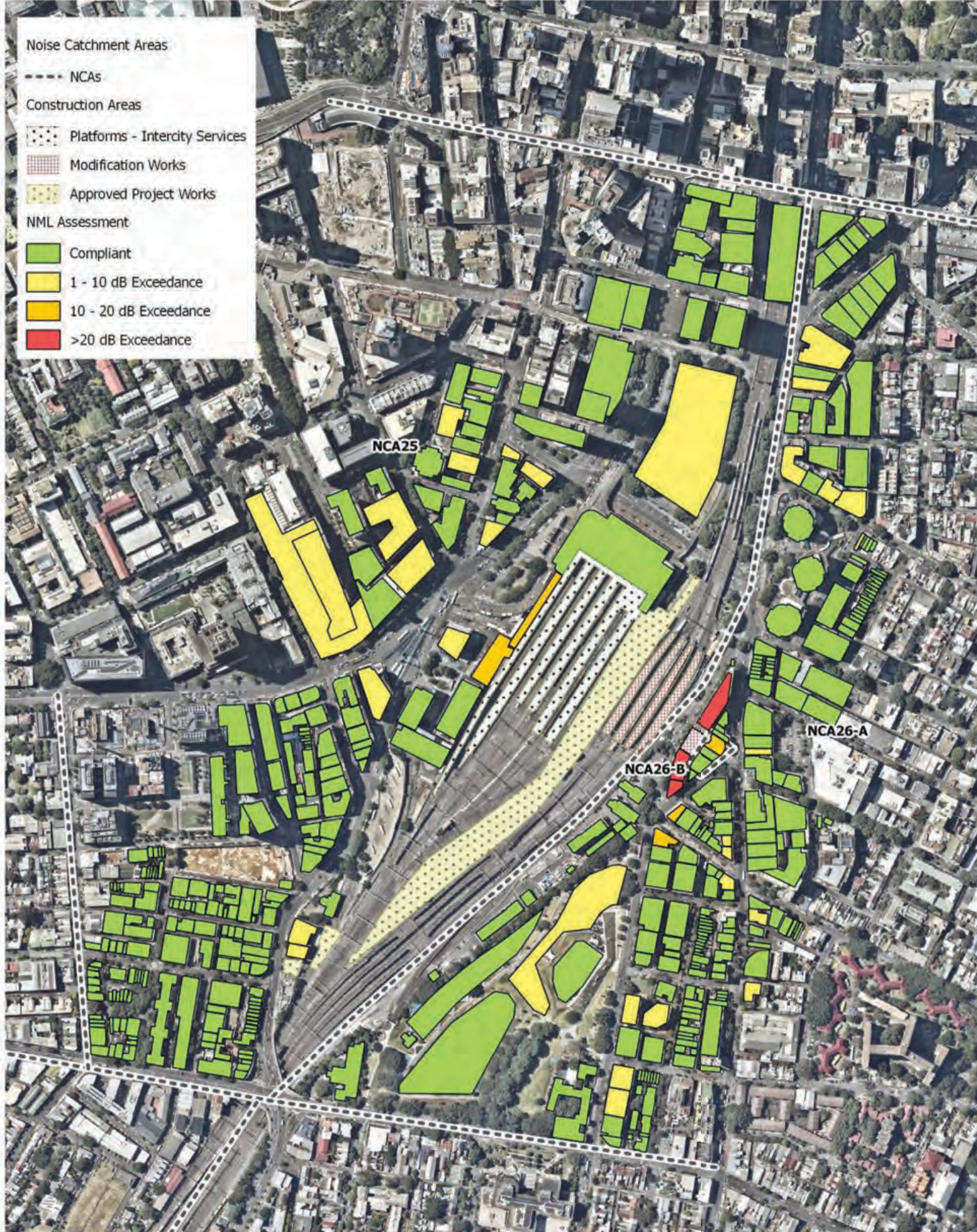
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All Enabling Works
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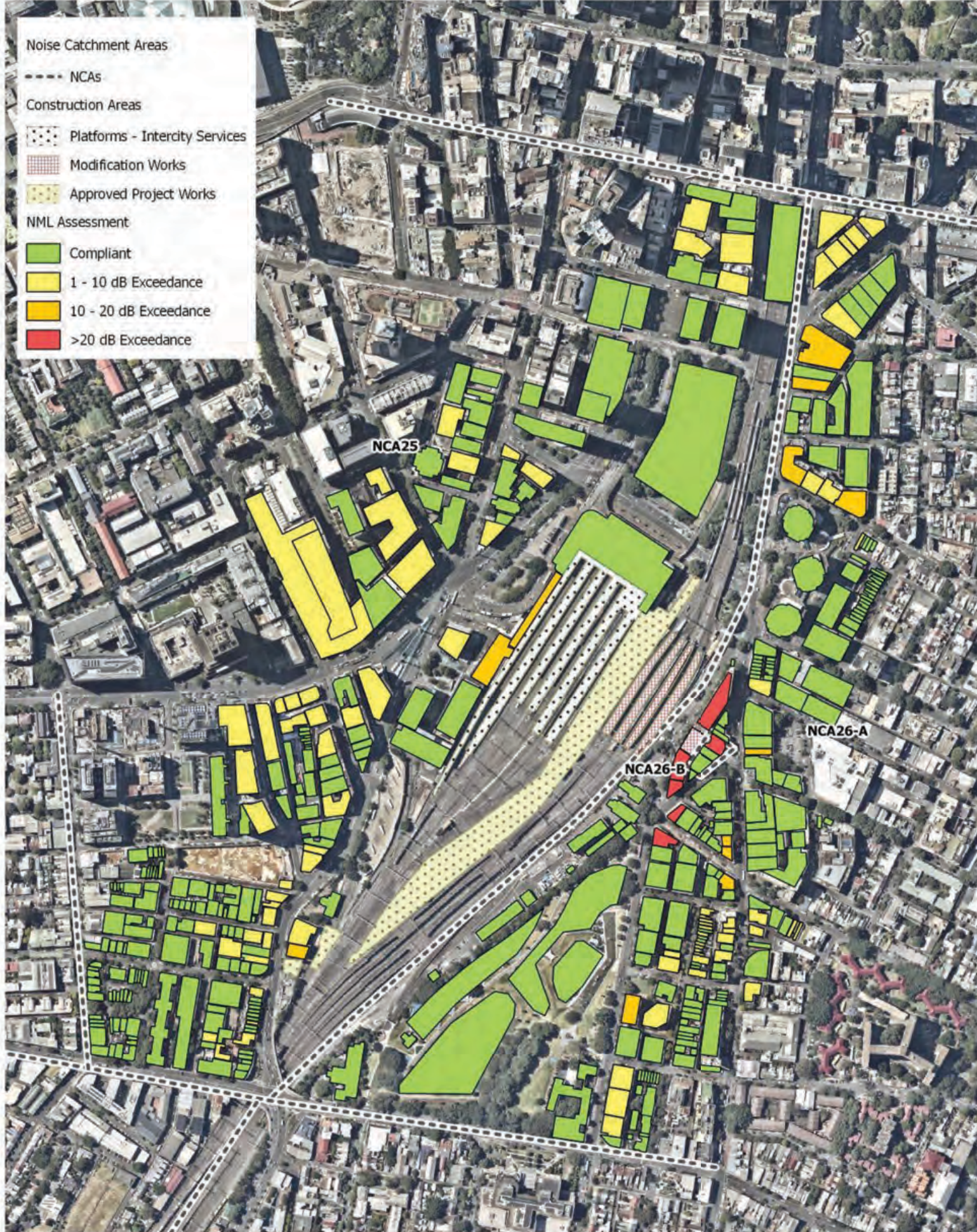
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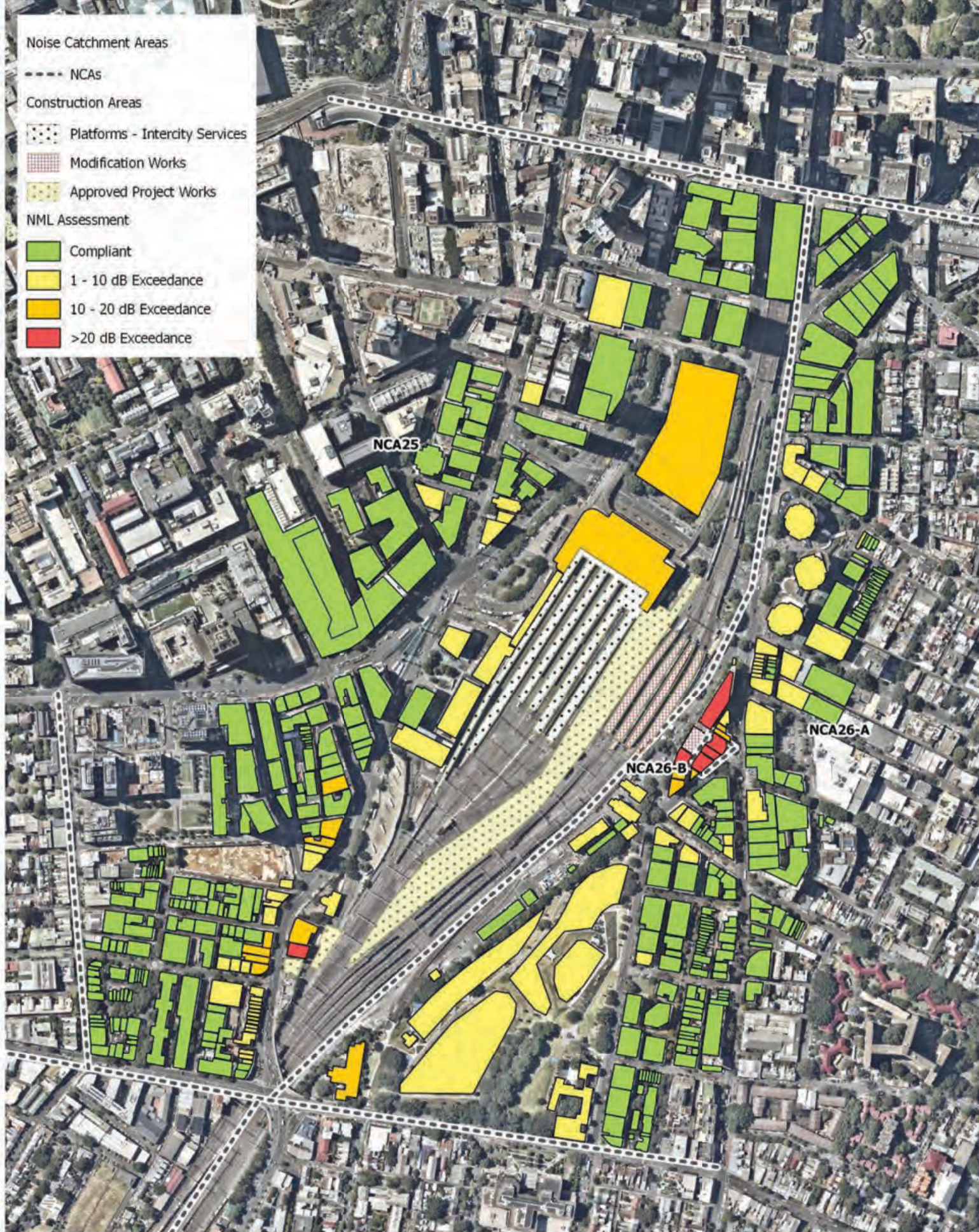
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NML Assessment Map
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All Earthworks
Daytime

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All Earthworks
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NML Assessment Map
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All Earthworks
Evening

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Noise Catchment Areas

--- NCAs

Construction Areas

Platforms - Intercity Services

Modification Works

Approved Project Works

NML Assessment

Compliant

1 - 10 dB Exceedance

10 - 20 dB Exceedance

>20 dB Exceedance



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Drawn by: YL
Scale: 1:7,612
Sheet Size: @ A4
Projection: NGDA 94 - MGA ZONE 56



0 50 100 150 200 250 m

TINSW

NML Assessment Map
Approved Project + Modification

All Earthworks
Night-time

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All Earthworks
Night-time Sleep Disturbance

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Noise Catchment Areas

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All Excavation Works
Daytime

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Noise Catchment Areas

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Construction Areas

Platforms - Intercity Services

Modification Works

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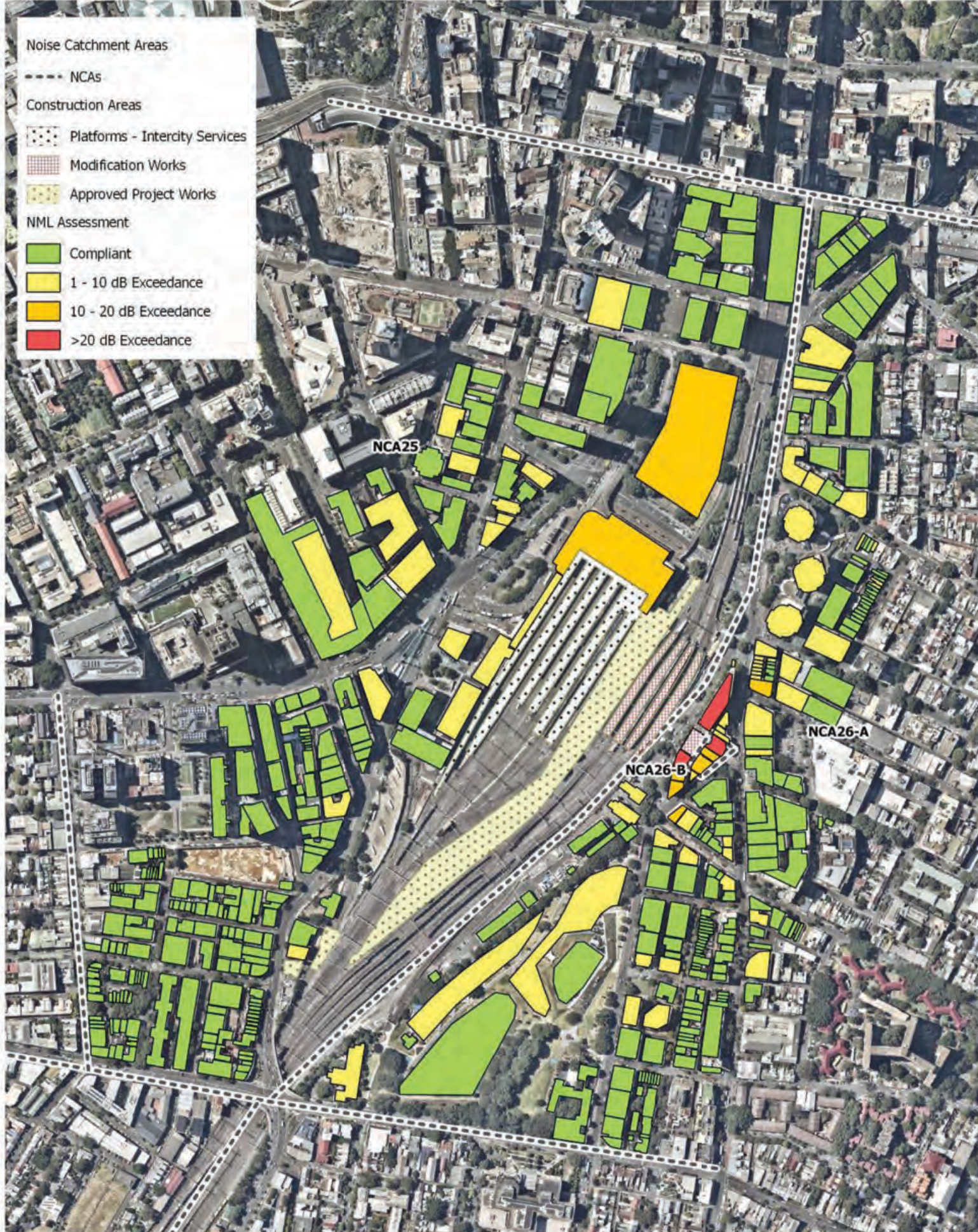
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All Excavation Works
Daytime OOH

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Noise Catchment Areas

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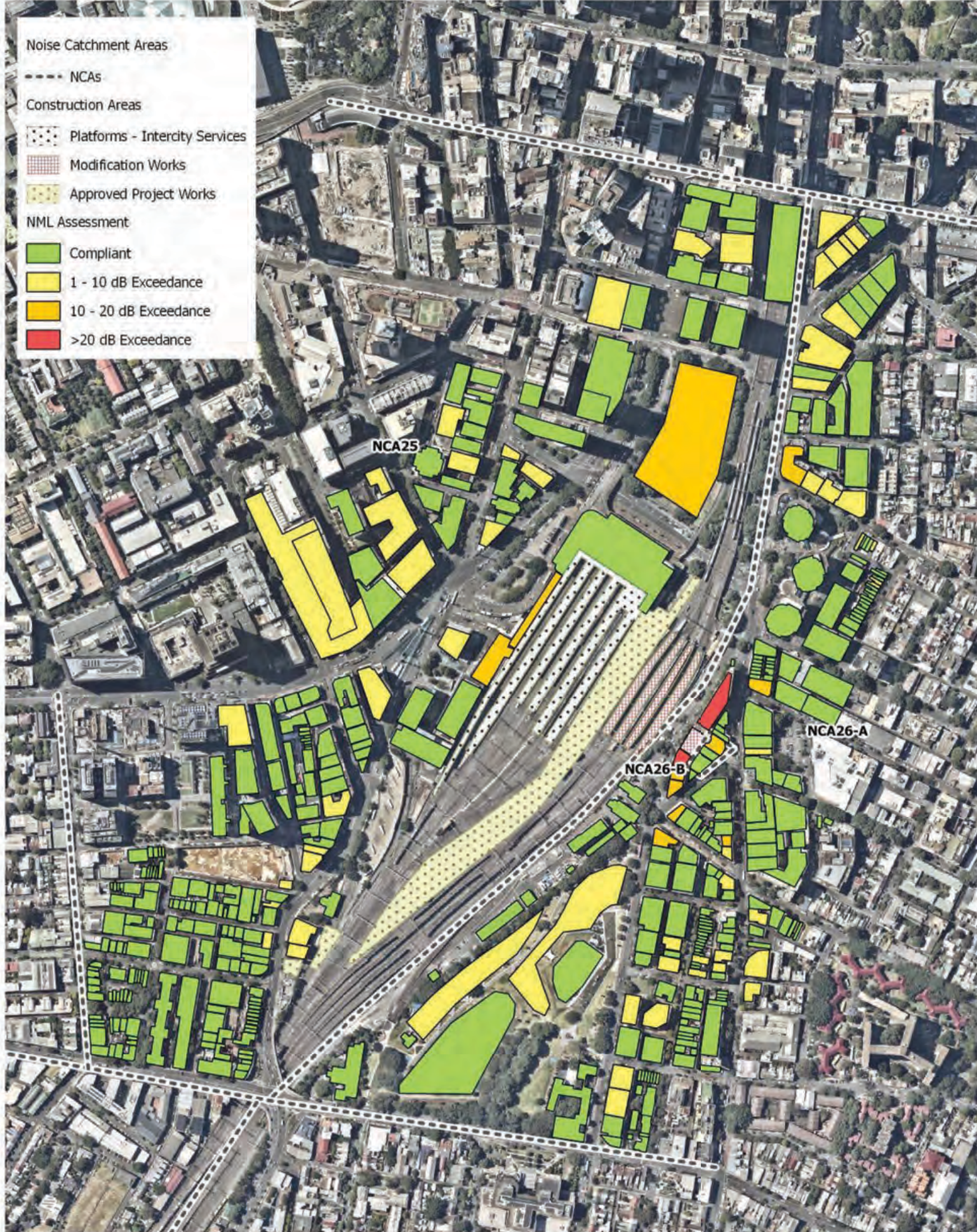
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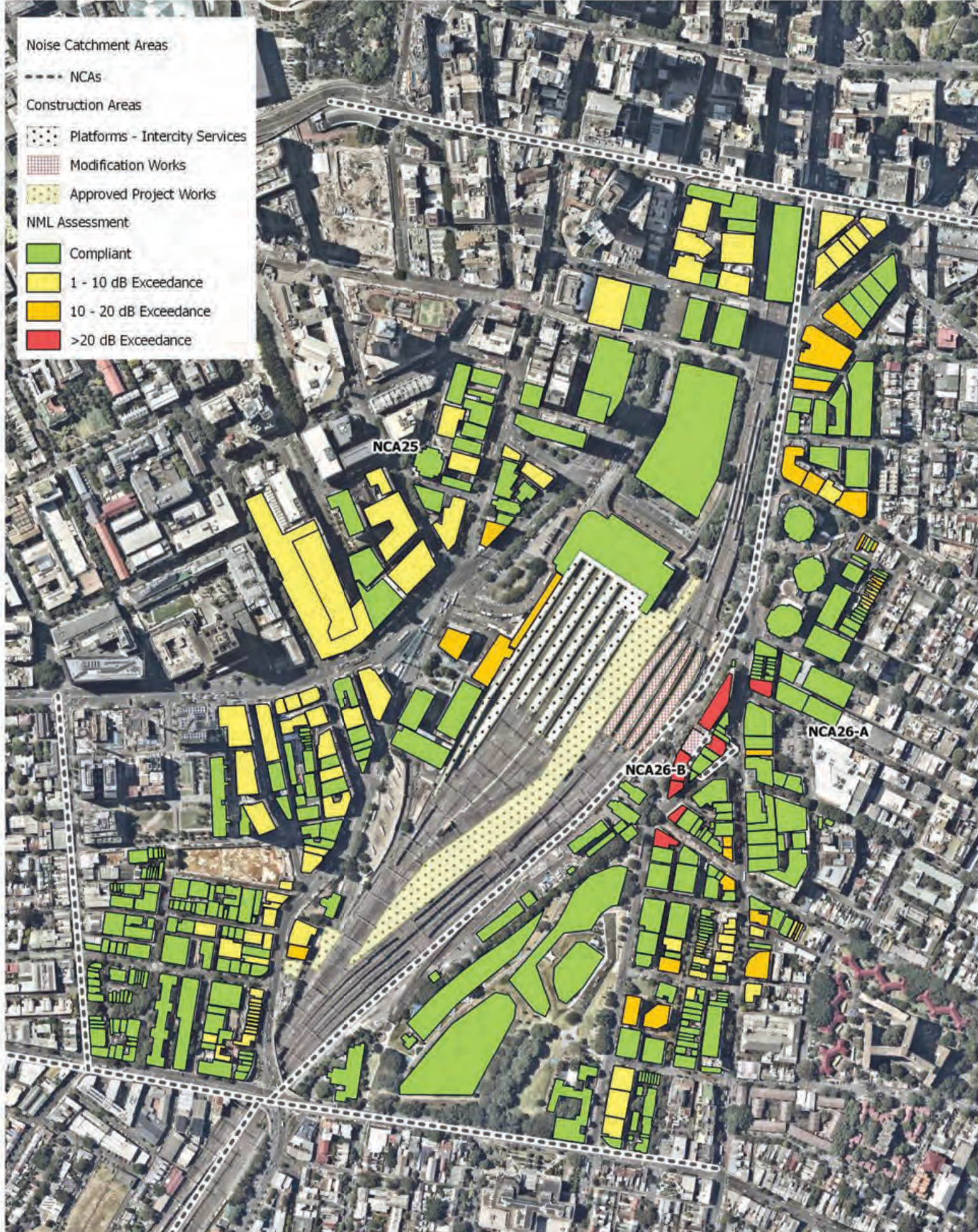
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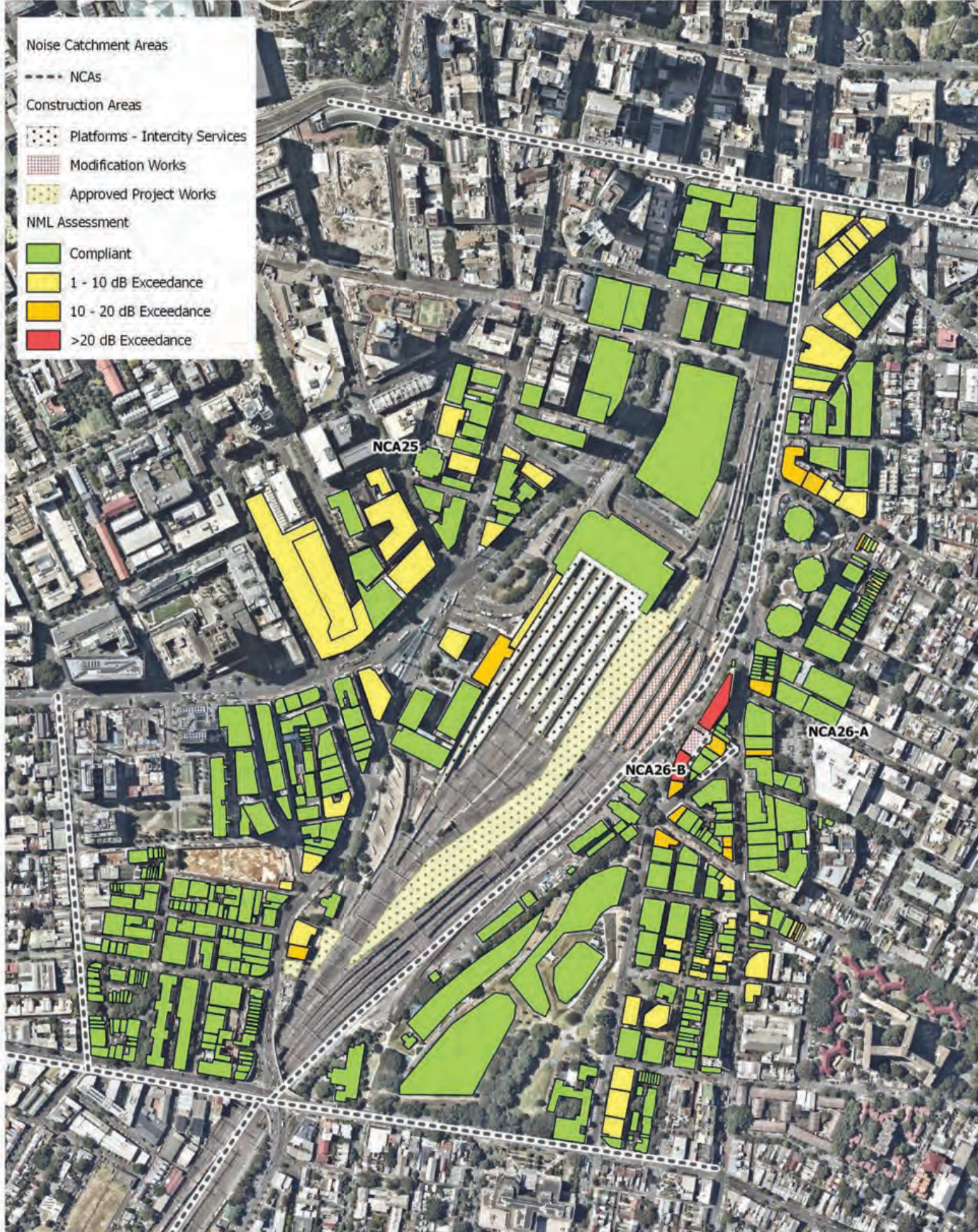
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All Excavation Works
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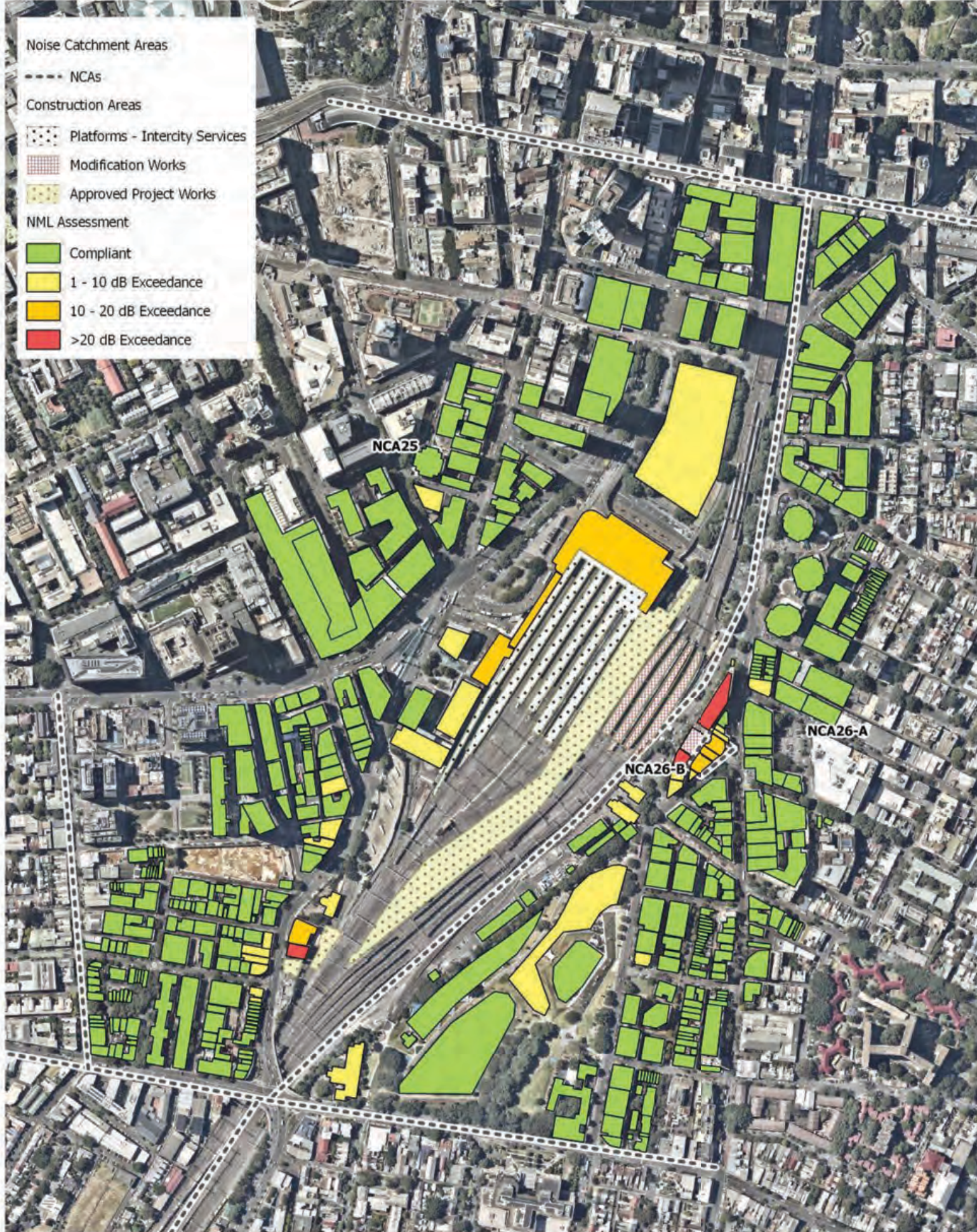
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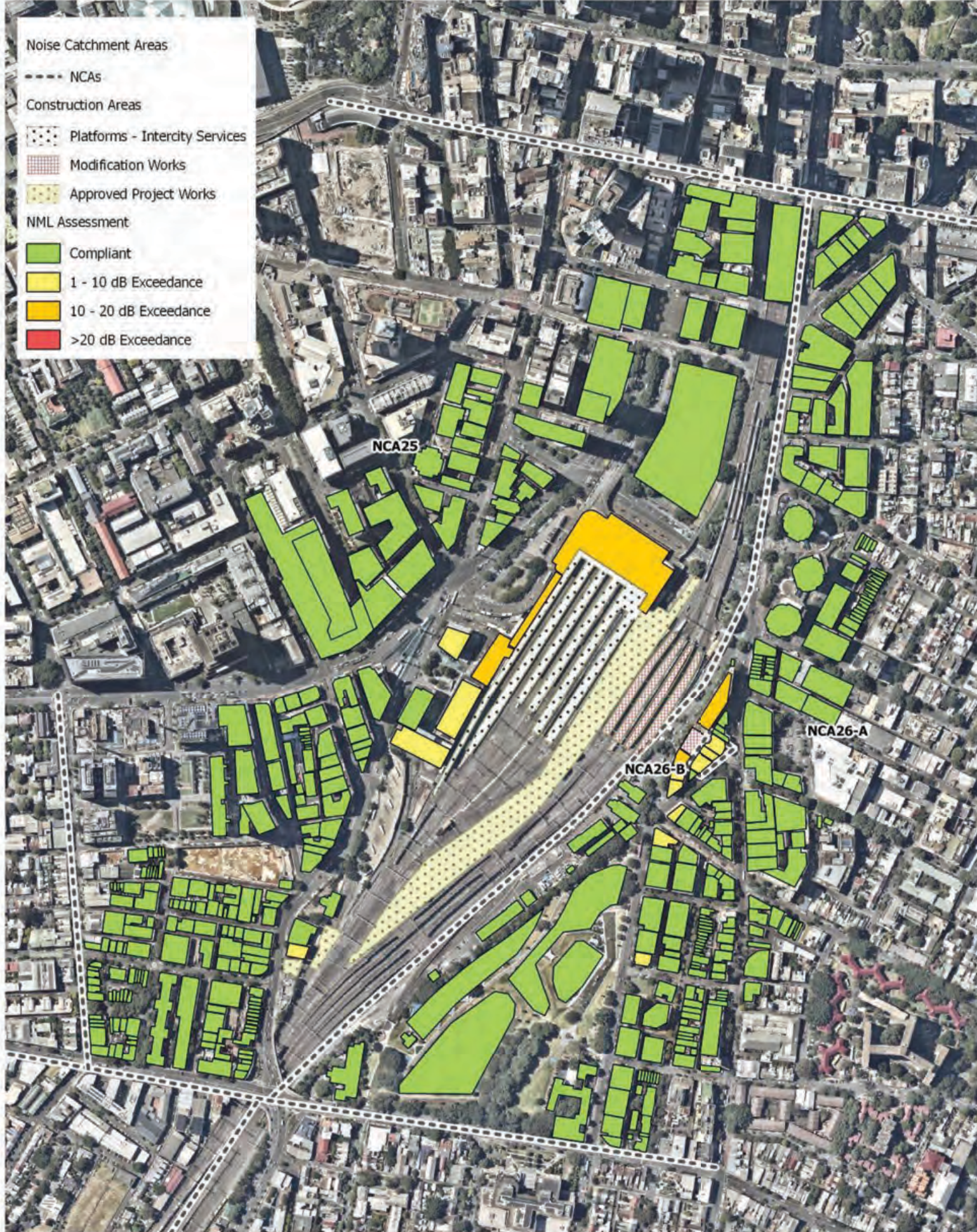
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