

# SEMAPHORE TO WEST BEACH SAND RECYCLING SYSTEM ABOVE GROUND INFRASTRUCTURE LANDSCAPE CONCEPT DESIGN

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# Introduction

A new underground sand recycling pipeline from Semaphore to West Beach will move sand from beaches where it builds up to beaches that are eroded. This report provides landscape and urban design concepts that will guide the future development of the above ground infrastructure that is required for the project.



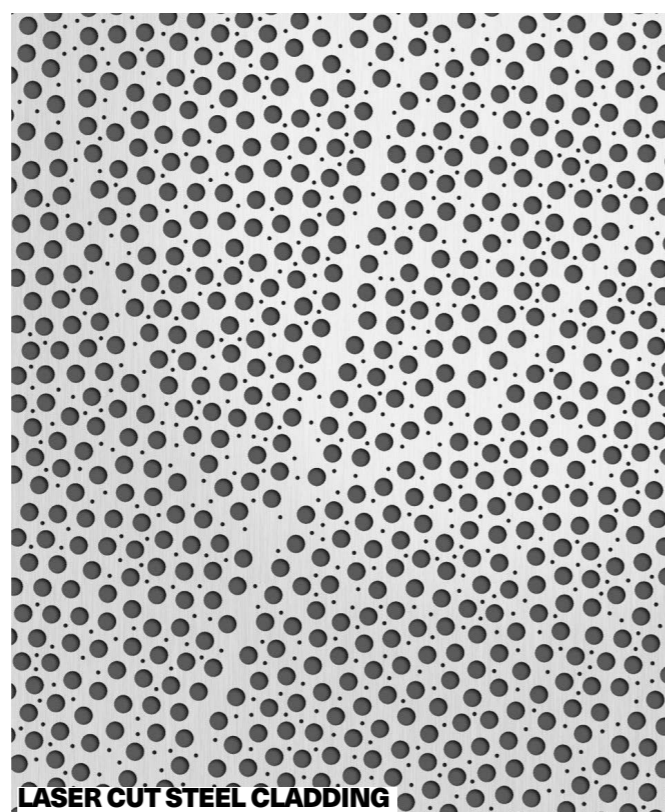
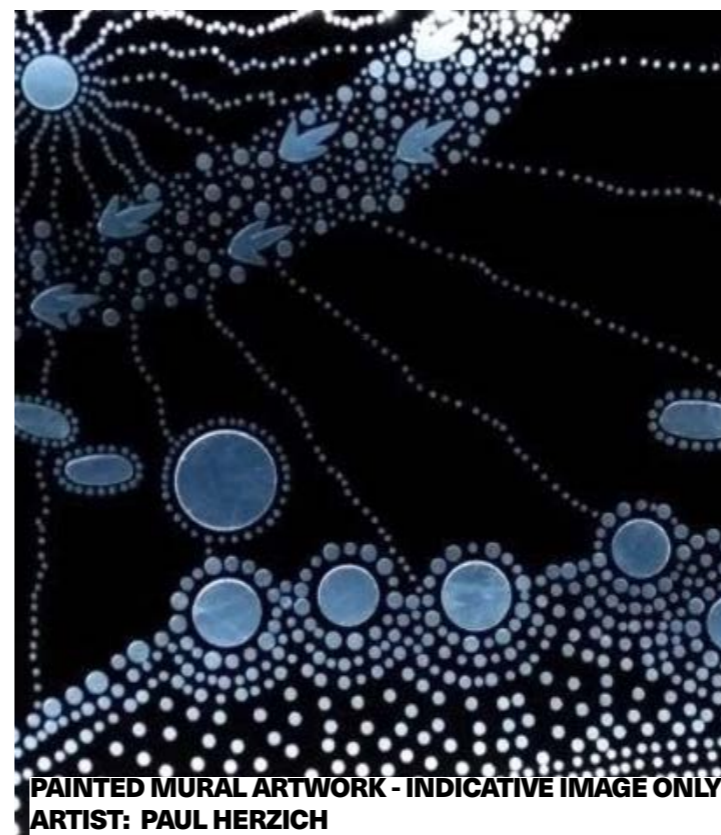
PUMP STATION LOCATION PLAN



## Public Art Precedents For Pump Station Infrastructure

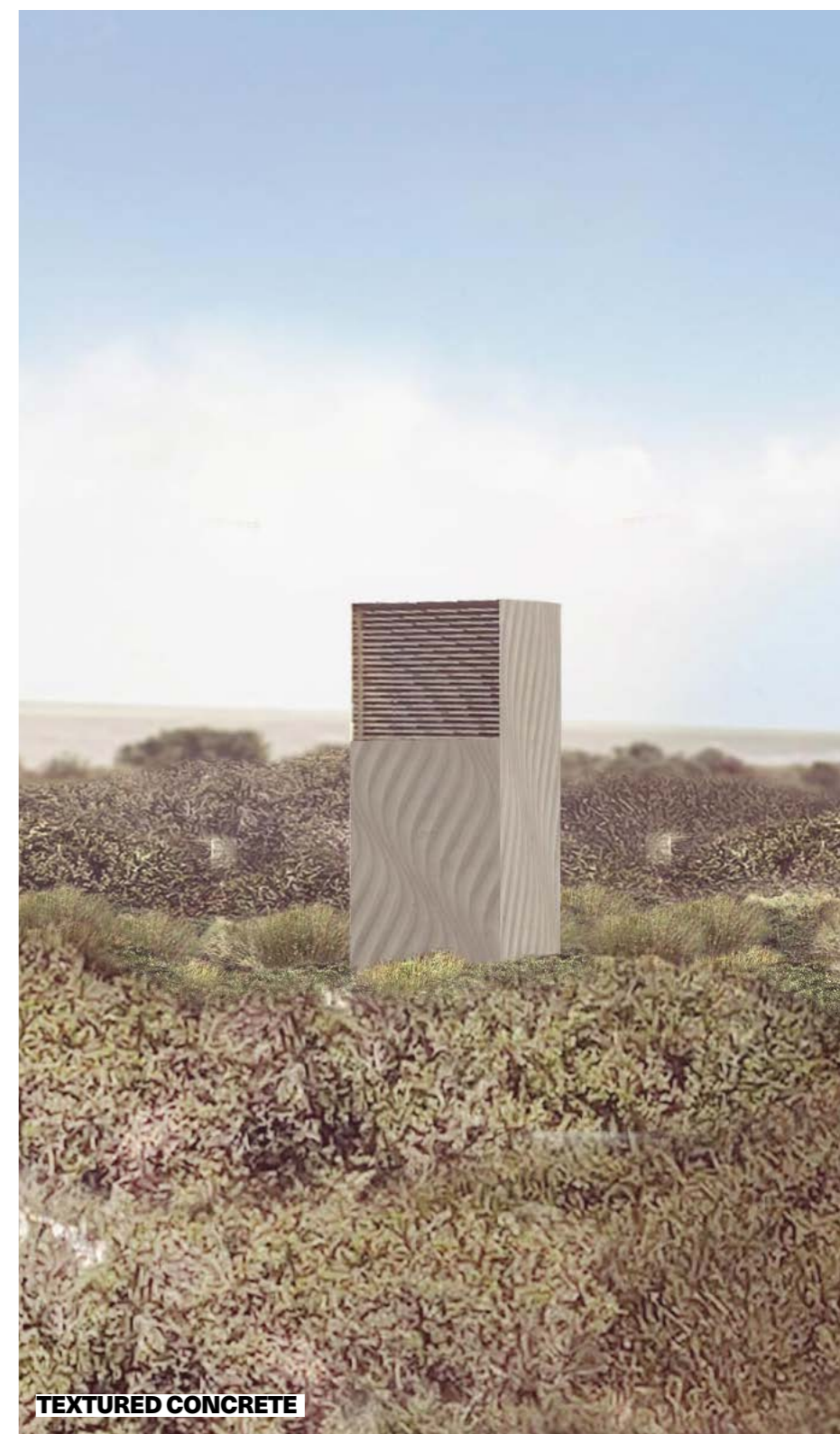
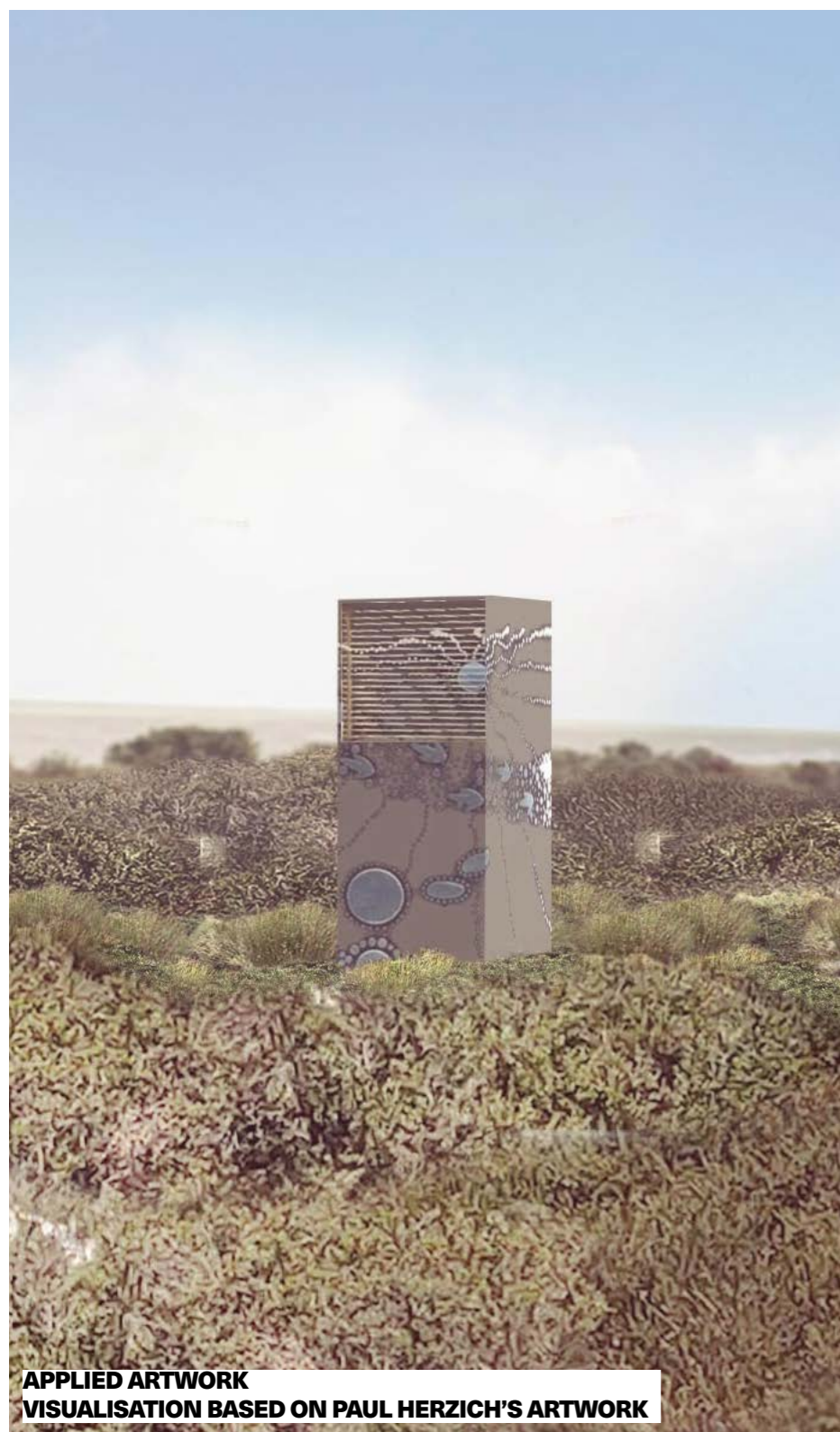
The sand recycling system requires pump stations to be built at regular intervals within the project zone (between Semaphore and West Beach). A typical pump station has an underground pump chamber, concrete slab at ground level and above ground infrastructure including, a vent stack, an electrical transformer and metering cabinet.

Opportunities exist to improve the visual impact of the above ground pump station infrastructure by carefully integrating it into the existing landscape. Further opportunities for public art, outdoor furniture, quality paving treatments, and interpretive signage should be considered.





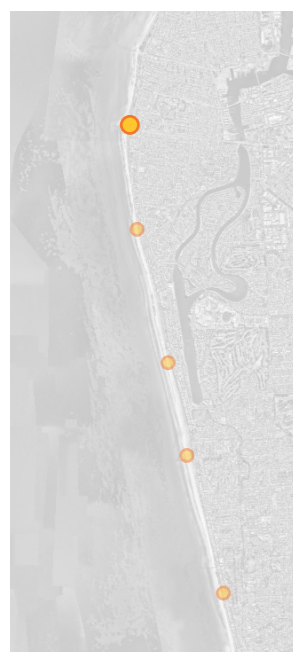
# VIEW : ARTWORK OPTIONS



Note:  
Indicative artwork and surface treatments only. Subject to Detailed Design,  
Community Consultation and Artist Collaboration.



# PLAN : PROPOSED SAND PUMPING STATION - BOWER ROAD, SEMAPHORE SOUTH



SITE LOCATION PLAN

N.T.S

Key

- 1 New dune revegetation planting
- 2 Existing vegetation to be protected
- 3 New planting
- 4 Pit lids
- 5 Existing sand track to beach
- 6 Pump station (under concrete slab)
- 7 Transformer
- 8 Trafficable asphalt pavement
- 9 Vent stack
- 10 New mountable kerb
- 11 Pedestrian crossing
- 12 Model train track
- 13 Existing Norfolk Pine to be protected
- 14 Meter box
- 15 Existing asphalt path
- 16 Existing carpark
- 17 Existing fence to reserve

Note: Public art opportunities to be investigated for pump station infrastructure. Refer to 'Public Art Precedents for Pump Infrastructure'





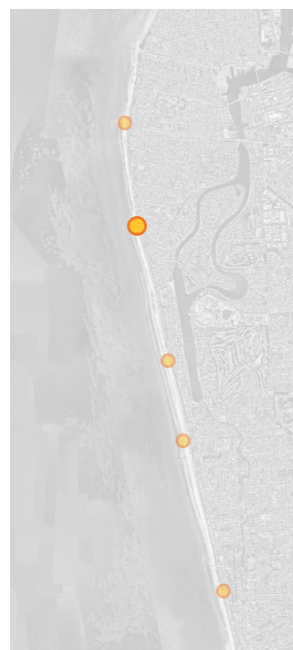
## VIEW : PROPOSED SAND PUMPING STATION - BOWER ROAD, SEMAPHORE



Note:  
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# PLAN : PROPOSED SAND PUMPING STATION - MIRANI COURT, WEST LAKE SHORES



SITE LOCATION PLAN

N.T.S

Key

- 1 New dune revegetation planting
- 2 Vent stack with opportunity for public art
- 3 Pump station (under concrete slab)
- 4 Pit lids
- 5 Transformer
- 6 Seats with backrest
- 7 Existing vegetation to be protected and retained
- 8 Removable bollards
- 9 Existing bollards
- 10 Meter box
- 11 Opportunity for block paving
- 12 Low planting
- 13 Seating Wall

Note: Public art opportunities to be investigated for pump station infrastructure. Refer to 'Public Art Precedents for Pump Infrastructure'





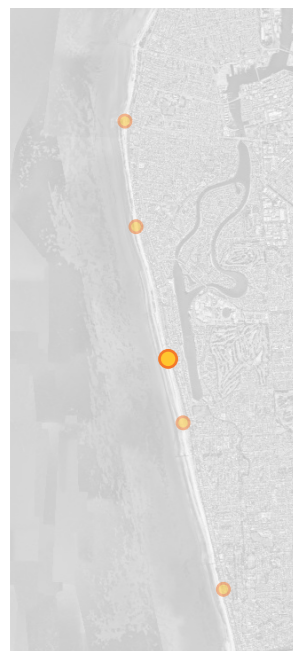
## VIEW : PROPOSED SAND PUMPING STATION - MIRANI COURT, WEST LAKE SHORES



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# PLAN : PROPOSED SAND PUMPING STATION - MOREDUN STREET, TENNYSON



SITE LOCATION PLAN

N.T.S

Key

1	New dune revegetation planting
2	Exeloo public toilet
3	Pump station (under concrete slab)
4	Vent stack
5	Transformer
6	Opportunity for public art/interpretation
7	Meter box
8	Steps
9	Existing sand track to beach
10	Existing grass

Note: Public art opportunities to be investigated for pump station infrastructure. Refer to 'Public Art Precedents for Pump Infrastructure'





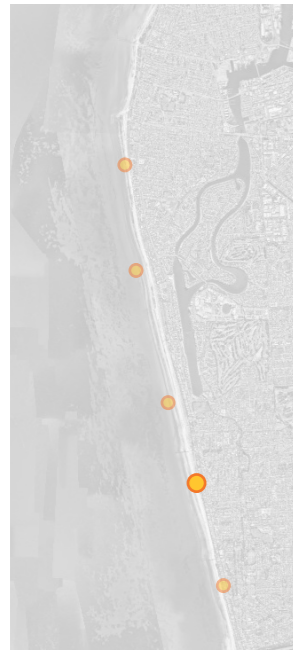
# VIEW : PROPOSED SAND PUMPING STATION - MOREDUN STREET, TENNYSON



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# PLAN : PROPOSED SAND PUMPING STATION - TERMINUS STREET, GRANGE



**SITE LOCATION PLAN**

1 N.T.S

**Key**

1	New dune revegetation planting
2	Existing vegetation to be protected and retained
3	Pump station (under concrete slab)
4	Pit lids
5	Vent stack
6	New crossover
7	Gate or removable bollards
8	Relocated light pole
9	Transformer
10	Meter box
11	Hardstand access to pump station
12	Existing paving
13	Existing sand track to beach

Note: Public art opportunities to be investigated for pump station infrastructure. Refer to 'Public Art Precedents for Pump Infrastructure'





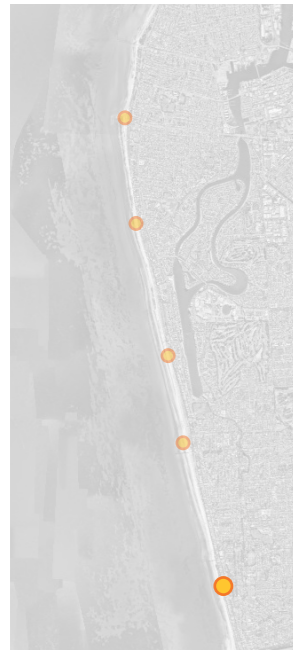
# VIEW : PROPOSED SAND PUMPING STATION - TERMINUS STREET, GRANGE



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# PLAN : PROPOSED SAND PUMPING STATION - THE ESPLANADE, HENLEY BEACH SOUTH



**SITE LOCATION PLAN**

⊙ N.T.S

**Key**

1	New dune revegetation planting
2	Rock armour revetment (extent by engineer)
3	Pump station (under concrete slab) (Top of pump station to be reinstated using pavers over concrete slab, to match adjacent surface treatment)
4	Pit lids
5	Handrail
6	Seats with backrest
7	Transformer
8	Public toilets
9	Vent stack
10	Meter box
11	Exposed aggregate concrete path

Note: Public art opportunities to be investigated for pump station infrastructure. Refer to 'Public Art Precedents for Pump Infrastructure'





## VIEW : PROPOSED SAND PUMPING STATION - THE ESPLANADE, HENLEY BEACH



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# Indicative Planting Palette for Coastal Revegetation & Amenity Areas

## LARGE SHRUBS



**Acacia cupularis**  
Cup Wattle



**Acacia longifolia**  
**ssp Sophorae**  
Coastal Wattle



**Melaleuca lanceolata**  
Dryland Tea-Tree



**Myoporum insulare**  
Common Boobialla

## UNDERSTOREY PLANTS



**Alyxia buxifolia**  
Sea Box



**Atriplex cinerea**  
Grey Saltbush



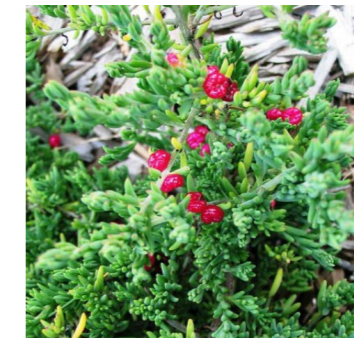
**Carpobrotus rossii**  
Native Pigface



**Dianella brevicaulis**  
Short-stem Flax-lily



**Disphyma crassifolium var**  
**Clavellatum**  
Round-leaf Pigface



**Enchylaena tomentosa**  
Ruby Saltbush



**Isolepis nodosa**  
Knobby Club Rush



**Kunzea pomifera**  
Muntries



**Leucophyta brownii**  
Coastal Cushion Bush



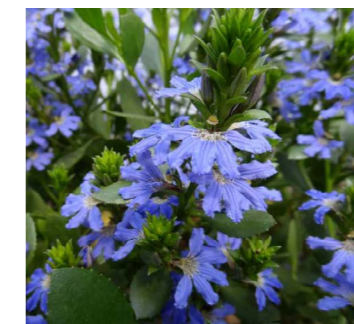
**Nitraria billardieri**  
Nitre Bush



**Olearia axillaris**  
Coastal Daisy Bush



**Rhagodia candolleana ssp.**  
**Candolleana**  
Sea Berry Saltbush



**Scaevola crassifolia**  
Cushion Fanflower



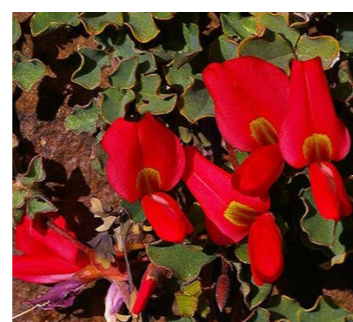
**Spinifex hirsutus**  
Rolling Spinifex



**Tetragonia implexicoma**  
Bower Spinach



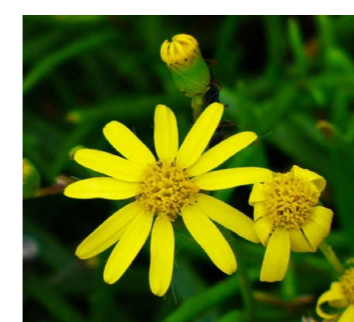
**Threlkeldia diffusa**  
Coast Bonefruit



**Kennedia prostrata**  
Running postman



**Lotus australis**  
Australian Trefoil



**Senecio pinnatifolius**  
Variable Groundsel



**ASPECT Studios**