

Condition Assessment

Site Name: Causeway Green Primary School – Photographic Record of Condition

23 May 2022

PLATE 1

- Locations 24 - 31
- Original asphalt roofs accounting for approximately 50% of total flat roof coverings;
- Solar reflective paint barely visible therefore roofs subject to high solar gain resulting in thermal shock;
- Poor application of solar paint resulting in fine alligator cracking of asphalt surface;
- Thermal shock results in significant deep cracking to asphalt allowing water ingress;
- Ponding present due to inadequate falls/historic settlement resulting in algal growth and accelerated deterioration of asphalt;
- Overlay single-ply membrane recommended within 2 years.



PLATE 2

- Locations B – H & 41 – 47; 40 & 94
- Asphalt roofs (inc. (49 - 96) with faded solar protection and significant alligator cracking;
- Felt roofs to (40), (94) and (68 - 84) in fair condition but likely 25 years old and well beyond life-expectancy of 15 years.
- Asphalt roofs require overlay within next 2 years, felt roofs within 5 years.



PLATE 3

- Timber fascias and soffits generally;
- Softwood fascias suffering moderate-to-severe decay requiring replacement or over-cladding;
- Soffits potentially ACM's generally in poor condition with badly flaking paintwork requiring removal and replacement if ACM or over-cladding if ply or cement-based. Complete redecoration.



PLATE 4

- As Plate 3



PLATE 5

- Pre-cast concrete soffits generally;
- Extensive spalling concrete due to inadequate cover depth and expansion of steel reinforcement due to rusting and caused by carbonation process;
- Remove all spalling sections, wire-brush loose rust, treat with inhibitor and make good with resin-based concrete prior to re-decoration.



PLATE 6

- Location 18 & 23
- Excessive deflection to concrete frame beam with stress cracking to concrete;
- Install intermediate steel supports to reduce span & rake-and-fill cracks with resin-based compound.



PLATE 7

- Location A (Kitchen)
- Spalling and exfoliating concrete to soffit caused by concrete carbonation, all as per Plate 5.



PLATE 8

- Location (94) Hall, (J) Dining Hall, (40) Gym & sundry locations
- Crittall metal framed windows, single glazed. Subject to solar gain in summer and high heat loss & condensation in winter. Opening casements prone to twisting & difficult to open & failing fasteners. Recommend phased replacement over next 5 years.



PLATE 9

- External Stores and secondary rooms around school;
- Metal frame window inserts in timber sub-frame. As Plate 8 windows subject to high heat loss & condensation issues. Recommend phased replacement over next 5 years.



PLATE 10

- External Store
- Isolated timber doors & frame. Doors in poor condition and beyond economic repair. Recommend replacement with flush ply-faced doors in softwood frame within next 2 years.



PLATE 11

- Location (94) – Replicated Locations (J) & (48)
- Original wood block floors set in herringbone pattern. Blocks badly worn and subject to previous sanding and varnishing regime. Consult flooring specialist for advice on whether renewal is necessary. Recommend refurbishment within 2 years.



PLATE 12

- Infants Generally – concrete ceiling/roof structure.
- Concrete roofs to later Infant Block. Light cracking most likely due to shrinkage of concrete but deflection also possible. Plastic compound finish may contain ACM's so care must be taken with any remedial repairs. Dry-lining with insulated plasterboard preferred solution.



PLATE 13

- Various locations to Infant Block concrete roof/ceiling structure.
- Black mould predominantly at external wall junctions probably caused by condensation formed from cold-bridging with external wall resulting in mould growth on damp surfaces. Can be managed in the short-term by applying biocidal solution but improving insulation levels and ventilation is preferred method of managing black mould.



PLATE 14

- Ceiling/Roof construction to Junior Block and Halls & Gym;
- Consist of channel reinforced woodwool slabs spanning between steel lattice beams with painted self-finish and asphalt roof finish. Utilitarian in looks and subject to high heat-loss therefore recommendation is to underline with insulated suspended ceiling tile system with new LED lighting taking care to ensure void is ventilated to prevent condensation and black mould outbreak in void.
- Work recommended on phased basis over the next 5 years.



PLATE 15

- Staff Toilets
- Original sanitaryware and dated cubicle partitioning requiring refurbishment to modern standards.



PLATE 16

- Original heat emitters & pipework.
- Boiler replaced circa 2016 but efficiency hampered by existing emitters and pipework. Pipework likely to suffer corrosion within floor voids so leakage anticipated long-term and ACM's may be present in the form of lagging. Advise phased replacement within 5-years.



PLATE 17

- Junior main playground;
- Tarmacadam in advanced stage of deterioration with extensive alligator cracking and fretting surface. Re-surfacing recommended within 12 months to avoid more expensive reconstruction work.



PLATE 18

- Junior rear playground;
- Tarmacadam in very poor condition with extensive cracking and breaking-up of surface, As with main playground resurfacing urgently required to prevent more expensive reconstruction work.



PLATE 19

- Main entrance tarmacadam driveway;
- Road surface in poor condition with extensive cracking and breaking-up of surface. As with playgrounds re-surfacing required in near future to prevent more expensive reconstruction work.



PLATE 20

- Tarmacadam car park;
- As Plate 19 comment.



PLATE 21

- Boundary Fencing;
- Plastic-coated chain-link fencing on metal posts and paneled fencing backing on to houses. Failing low-security fencing with broken straining wire and buckled panels. Fencing where necessary to be replaced to meet safeguarding concerns. Masonry boundary walls require minor repair and re-pointing.



PLATE 22

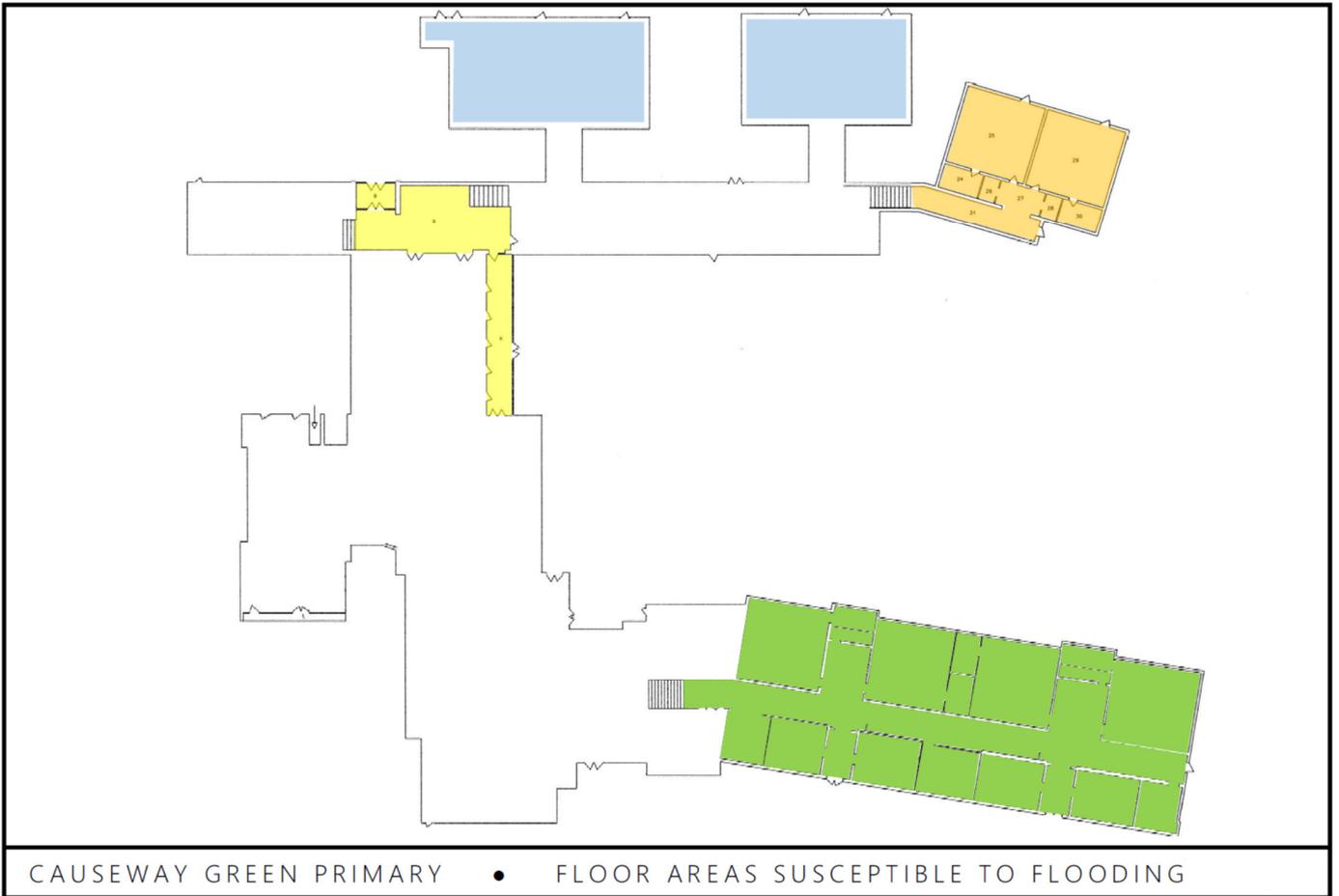
- Boundary Fencing;
- As Plate 21. Any safeguarding weaknesses to be addressed within 12 months.



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| APPENDICIES | |
| | <ul style="list-style-type: none"> ● (A) – REPLACEMENT ROOF AREAS |
| | <ul style="list-style-type: none"> ● (B) – FLOOD WATER ENTRY POINTS |
| | <ul style="list-style-type: none"> ● (C) – INTERNAL LOCATIONS SUSCEPTIBLE TO FLOODING |
| | <ul style="list-style-type: none"> ● (D) – EXECUTIVE SUMMARY |
| | <ul style="list-style-type: none"> ● (E) – BUDGET COSTS |
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School built in 1953 with mixture of Hills system-built (predominantly Junior school) and traditional construction, (Infants). The Hills facade was originally clad in concrete planks however as a result of failure the cladding was replaced with metal composite panels 12 years ago. The school is built on a sloping site with numerous level changes making access around the site difficult for disabled personnel.

The facing brickwork is generally in good condition. The Crittall fenestration requires replacement to the dining hall and gyms and secondary rooms, with twisted frames creating difficulty in opening, large solar gain in the summer and severe condensation in the winter months. The primary external entrance doors have been replaced in aluminium though a few timber doors and frames exist.

The roof construction is a mixture of reinforced concrete and woodwool slabs. Approximately 50% of the asphalt & felt roofs require replacement. The fascias and soffits are in poor condition requiring replacement.

We would anticipate a low building energy efficiency rating with only areas of new cladding being insulated.

Internally the school is dated and in need of refurbishment. The ceilings show evidence of previous roof leaks and black mould, the internal doors and hardware are worn and deteriorated, fittings are dated, and major redecoration is required. The sanitary accommodation has benefitted from recent refurbishment though staff facilities are poor.

The heating system has had the boilers replaced within the last 10 years though the distribution heating and domestic pipework and heat emitters are original and phased replacement is recommended, (no allowance in our costings have been made for asbestos removal which could increase replacement cost significantly if found to be present). The AC units will require replacement within 5 years with the kitchen extract canopy within 2 years.

The lighting installation requires a major overhaul in conjunction with the ceiling replacement. The distribution boards have been replaced over the past few years and therefore considered in good condition. Of the 5 platform lifts 4 will require replacement within the next 5 years.

Both main playgrounds are in poor condition requiring resurfacing before major expensive repairs become necessary. The car park is similarly in a deteriorating condition. The majority of perimeter fencing/walling requires replacement or repair. The school site is prone to flooding with an inability to manage exceptional rainfall. To prevent future flooding a major attenuation scheme is advised.

Whilst the school is capable of refurbishment, in practical and economic terms a complete rebuild would represent arguably the more feasible option with a significant portion of the building fabric and components requiring replacement or refurbishment within the next 5 years.

Contact Information

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PLAYGROUND GULLIES SHOULD STOP SIGNIFICANT FLOODING. CHECK IF FLOODING IS CAUSED BY IMPROPER OUTFALLS ON GULLIES OR OUTFALL CAPACITY

FIX LEVEL SO WATER DOES NOT GO INTO BUILDING

CONFIRM THAT WATER DOES FLOW TOWARDS THE BUILDING AND NOT AROUND IT

PENSTOCK TO LET WATER ESCAPE FLOOD AREA ONCE THE DRAINAGE SYSTEM IS COPING WITH FLOWS

NEW FLOOD AREA CONTAINED BY EMBANKMENT

EXTEND EMBANKMENT TO CREATE FLOOD AREA

NEW GULLIES TO HELP DEAL WITH WATER FLOW FROM THE ROOF AND STAIRS

NEW DITCH TAKING WATER TO FLOOD AREA AND REDUCE IMPACT TO SCHOOL BUILDING

REGRADE TARMAC TO EXISTING CHANNEL LEVEL

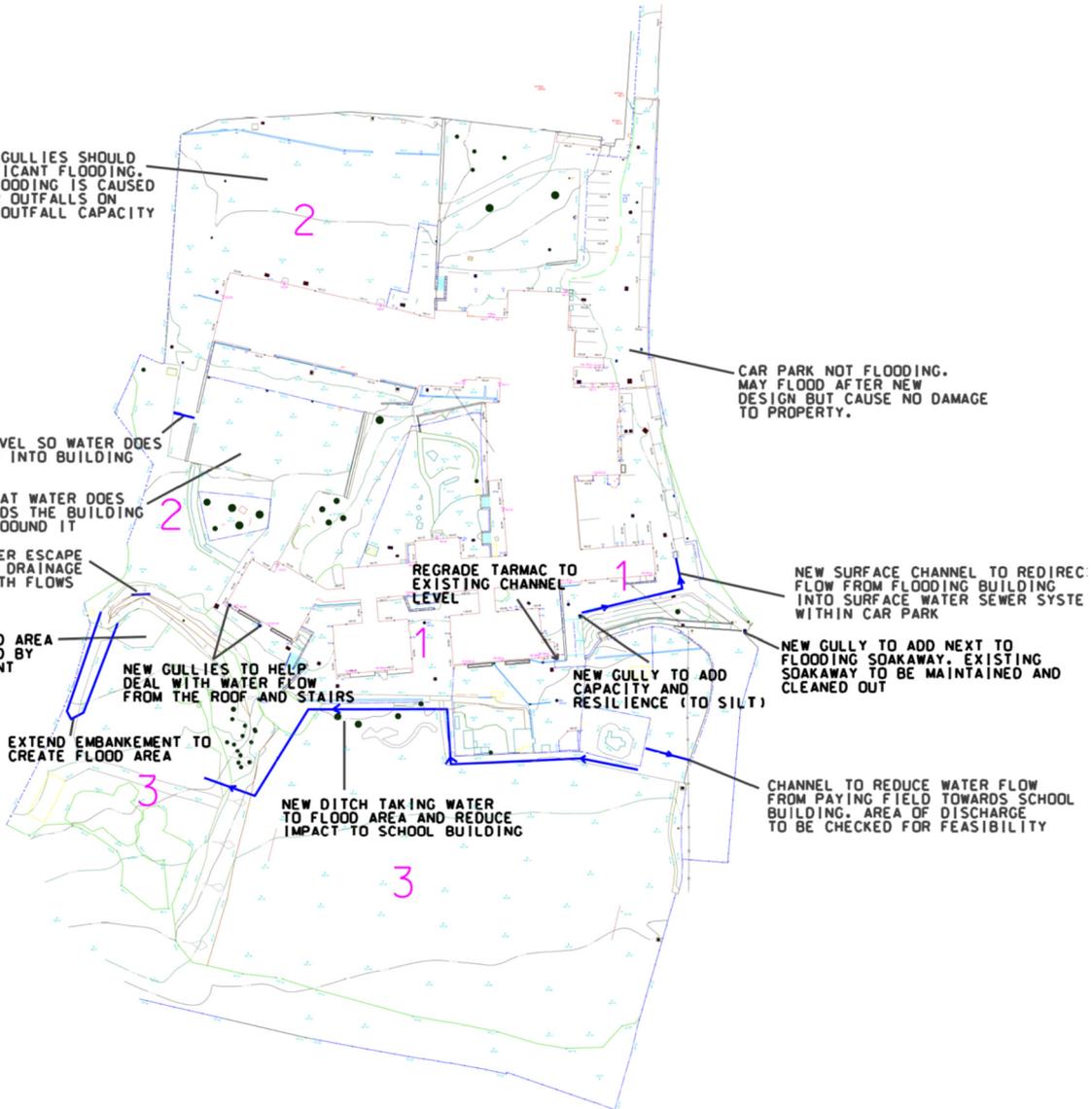
NEW GULLY TO ADD CAPACITY AND RESILIENCE (TO SILT)

CAR PARK NOT FLOODING. MAY FLOOD AFTER NEW DESIGN BUT CAUSE NO DAMAGE TO PROPERTY.

NEW SURFACE CHANNEL TO REDIRECT FLOW FROM FLOODING BUILDING INTO SURFACE WATER SEWER SYSTEM WITHIN CAR PARK

NEW GULLY TO ADD NEXT TO FLOODING SOAKAWAY. EXISTING SOAKAWAY TO BE MAINTAINED AND CLEANED OUT

CHANNEL TO REDUCE WATER FLOW FROM PAYING FIELD TOWARDS SCHOOL BUILDING. AREA OF DISCHARGE TO BE CHECKED FOR FEASIBILITY



CAUSEWAY GREEN PRIMARY ● PROPOSED FLOOD ALLEVIATION SCHEME