

# Development At Bourne

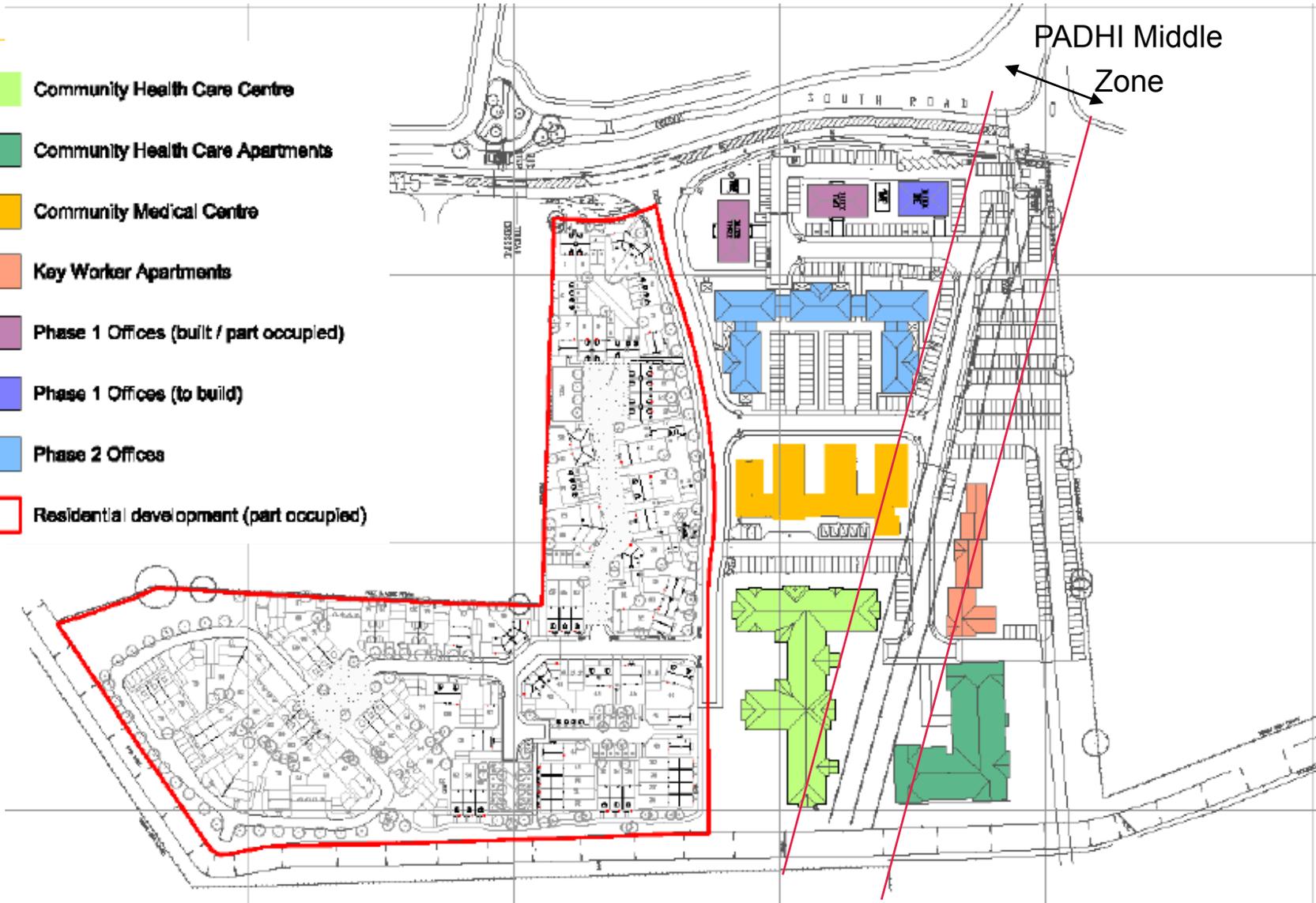
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# Bourne Development

- Community Health Care Centre
- Community Health Care Apartments
- Community Medical Centre
- Key Worker Apartments
- Phase 1 Offices (built / part occupied)
- Phase 1 Offices (to build)
- Phase 2 Offices
- Residential development (part occupied)



# Development Details

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- ◆ Community Healthcare centre - 88 beds - assumed 60% in rooms 40% in communal areas plus 20 staff per shift
- ◆ Community Healthcare Apartments - 40 apartments - 60% 2 occupants per apartment, 40% 1 occupant per apartment.
- ◆ Community Medical Centre - Staff on site from 10 to 90 - patients from 0 to 50.
- ◆ Key Worker Apartments - 21 apartments - assumed 60% single occupancy, 40% with 2 persons
- ◆ Phase 1 Offices:
  - Office 1 - Assumed 36 persons.
  - Office 2 - Currently occupied by 36 persons.
  - Office 3 - Assumed 60 persons.

# Pipeline Details

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- ◆ 273 mm diameter
- ◆ 7.9 mm wall
- ◆ X46
- ◆ 37.2 bar g MOP
- ◆ 0.23 design factor
- ◆ BPD 8 m for the slabbed section, 16.5 m for the unslabbed section
- ◆ PADHI Zones
  - ◆ inner zone 17 m
  - ◆ middle zone 37 m
  - ◆ outer zone 55 m

## Risk Assessment Results (using PIPESAFE)

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- ◆ Building burning distance = 62 m
- ◆ Escape distance = 68 m (escape speed = 2.5 m/s and 50% lethality dose)
- ◆ Escape distance = 110 m for sensitive population (escape speed = 0.7 m/s and 1% lethality dose)
- ◆ Calculated individual risk  $2.5 \times 10^{-9}/\text{yr}$

# Societal Risk Assessment Results

