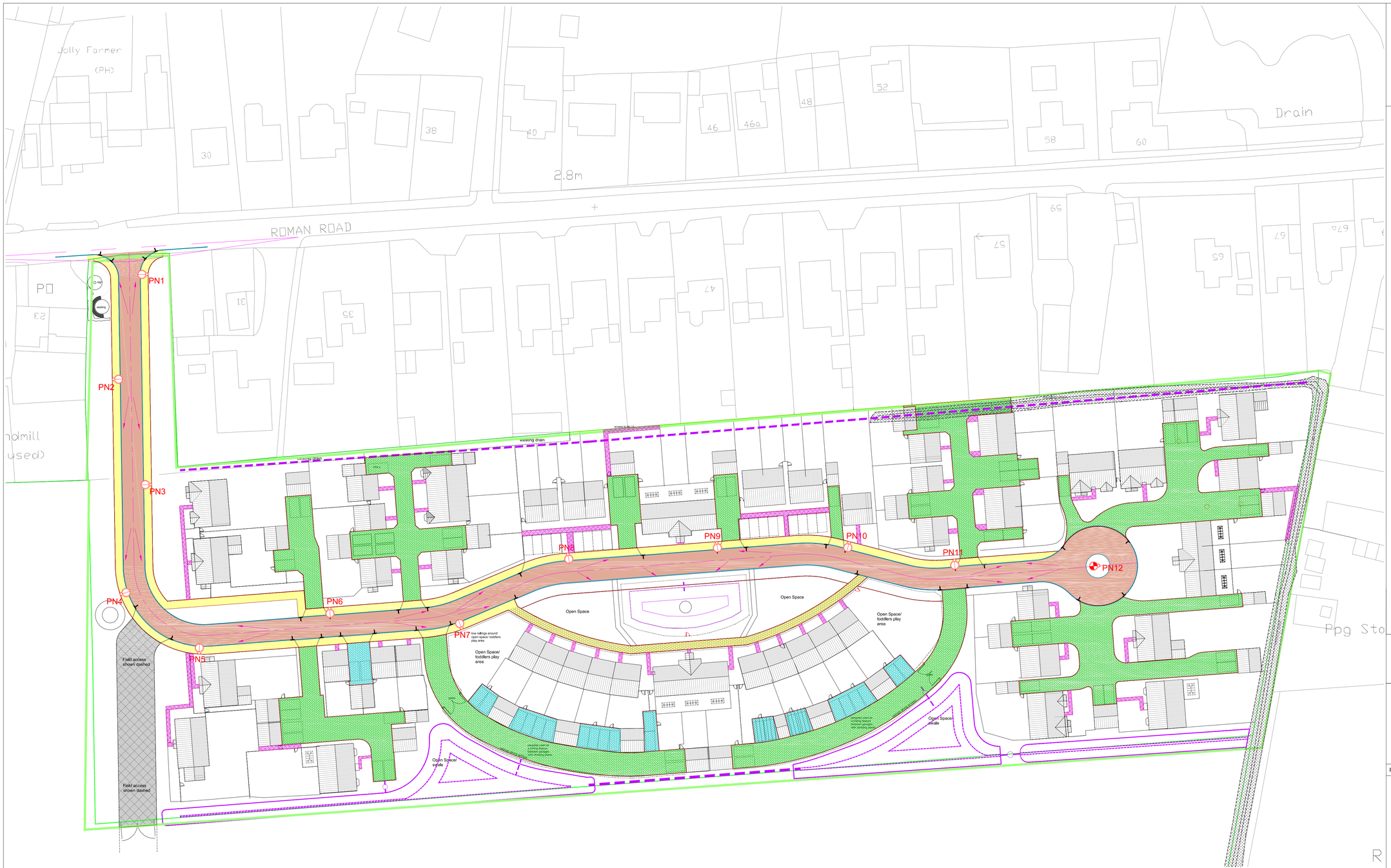


HARD LANDSCAPING PLAN - KEY

ADOPTABLE TARMAC CARRIAGEWAY CONSTRUCTION TO LINCOLNSHIRE COUNTY COUNCIL HIGHWAY SPECIFICATION.
DESIGN BASED ON 1.5% CBR.

SURFACE COURSE:
- 40mm COMPACTED THICKNESS OF 10mm NOMINAL SIZE THIN SURFACE COURSE (AC10 CLOSE SURF 70/100) TO CLAUSE 7.3,
- IT MUST BE COMPACTED IN ACCORDANCE WITH CLAUSE 7.2 TO AVOID CONTENT WITHIN THE RANGE 2%-10%.
- THE SURFACE COURSE MUST BE BONDED TO THE BINDER COURSE.

BINDER COURSE:
- 130mm COMPACTED THICKNESS OF 20mm NOMINAL SIZE DENSE BINDER COURSE (AC 20 DENSE BIN 40/60 REC) TO CLAUSE 9.1.
- IT SHALL BE LAID IN A SINGLE LAYER OR COMBINATION OF LAYERS NOT LESS THAN 50mm THICKNESS NOR GREATER THAN 110mm THICKNESS, AND BE THOROUGHLY COMPACTED ALL IN ACCORDANCE WITH BS 594987:2015,.
- BINDER TO BE 40-60 PEN.
- IN SITU AIR VOIDS BETWEEN 2% & 8%.

SUB-BASE:
- 300mm COMPACTED THICKNESS OF GRANULAR MATERIAL HIGHWAYS SPECIFICATION CLAUSE 803. IT SHALL BE SPREAD EVENLY ON THE FORMATION IN LAYERS OF A DEPTH NOT MORE THAN 150mm COMPACTED THICKNESS.
- THE FORMATION SHALL BE TREATED WITH AN APPROVED WEED KILLER BEFORE CONSTRUCTION COMMENCES.

CAPPING LAYER:
- 440mm COMPACTED THICKNESS OF TYPE 6F5 GRANULAR MATERIAL TO BE LAID ON A LAYER OF GEOGRID TENAX TYPE A TR20-3381 V1 ABOVE A SINGLE LAYER OF EKOTEX TYPE B TR20-3381 V1, FOR SEPERATION.

ADOPTABLE TARMAC FOOTWAY CONSTRUCTION TO LINCOLNSHIRE COUNTY COUNCIL HIGHWAY SPECIFICATION.

SURFACE COURSE:
- 25mm COMPACTED THICKNESS OF 6mm AC 6 DENSE SURF COMPLIANT WITH BS EN 13108-1 AND PD6691.
- BINDER TO BE 70/100 PEN.
- IN SITU AIR VOIDS BETWEEN 2% & 10%.
- THE SURFACE COURSE MUST BE BONDED TO THE BINDER COURSE.

BINDER COURSE:
- 100mm COMPACTED THICKNESS OF 20mm NOMINAL SIZE AC 14 DENSE ASPHALT TO BS EN 13108-1 AND PD6691.
- IT SHALL BE LAID AND THOROUGHLY COMPACTED ALL IN ACCORDANCE WITH BS 594987:2015,
- BINDER TO BE 70/100 PEN.
- IN SITU AIR VOIDS BETWEEN 2% & 10%.

SUB-BASE:
- 100mm COMPACTED THICKNESS OF TYPE 1 GRANULAR MATERIAL HIGHWAYS SPECIFICATION CLAUSE 803.
- 150mm THICKNESS FOR VEHICLE CROSSOVERS.
- THE FORMATION SHALL BE TREATED WITH AN APPROVED WEED KILLER BEFORE CONSTRUCTION COMMENCES.
- BITUMINOUS LAYERS SHOULD BE MACHINE LAID IN ACCORDANCE WITH BS 594987:2015.

PRIVATE SHARED ACCESS CONSTRUCTION (PERMEABLE BLOCK PAVING - TOBERMORE OR SIMILAR APPROVED)
DESIGN BASED ON LOAD CATEGORY 3 WITH A 1.5% CBR.

SURFACE COURSE:
- 80mm THICKNESS OF TOBERMORE HYDROPAVE PERMEABLE PAVING OR SIMILAR APPROVED.

BINDER COURSE:
- 50mm COMPACTED THICKNESS OF LAYING COURSE MATERIAL COMPRISING MOSTLY PASSING 6.3mm SIEVE AND MOSTLY RETAINED ON A 3mm SIEVE (SAND) TO BS 7533-13:2009 AND BS 13242:2002.

BASE COURSE:
- 70mm DENSE BITUMEN MACADAM HOLE PUNCHED WITH 25mm DIA HOLES AT 750mm CENTRES.

SUB-BASE:
- 400mm OF HYDRAULICALLY BOUND COURSE GRADED AGGREGATE (TYPE 3) LAID IN LAYERS NOT EXCEEDING 100mm THICK, EACH LAYER TO BE WELL COMPACTED. AGGREGATE TO BE WRAPPED IN A PERMEABLE GEOTEXTILE TERRAM 2000 OR SIMILAR APPROVED.

SUB-GRADE:
- SOFT SPOTS TO BE REMOVED AND SUITABLE MATERIAL ROLLED IN, IN 150mm THICK LAYERS.
- SUB-GRADE TO BE COMPACTED WITH A ROLLER OF APPROVED TYPE AND WEIGHT TO PROFILES AND SHAPE. THEN COVERED WITH A LAYER OF NON WOVEN GEOTEXTILE MEMBRANE SUCH AS TERRAM 1000 OR SIMILAR APPROVED.

PRIVATE SHARED ACCESS CONSTRUCTION (PERMEABLE BLOCK PAVING - TOBERMORE OR SIMILAR APPROVED)
DESIGN BASED ON LOAD CATEGORY 3 WITH A 1.5% CBR.

SURFACE COURSE:
- 60mm THICKNESS OF TOBERMORE HYDROPAVE PERMEABLE PAVING OR SIMILAR APPROVED,

BINDER COURSE:
- 50mm COMPACTED THICKNESS OF LAYING COURSE MATERIAL COMPRISING MOSTLY PASSING 6.3mm SIEVE AND MOSTLY RETAINED ON A 3mm SIEVE (SAND) TO BS 7533-13:2009 AND BS 13242:2002.

BASE COURSE:
- 70mm DENSE BITUMEN MACADAM HOLE PUNCHED WITH 25mm DIA HOLES AT 750mm CENTRES.

SUB-BASE:
- 400mm OF HYDRAULICALLY BOUND COURSE GRADED AGGREGATE (TYPE 3) LAID IN LAYERS NOT EXCEEDING 100mm THICK, EACH LAYER TO BE WELL COMPACTED. AGGREGATE TO BE WRAPPED IN A PERMEABLE GEOTEXTILE TERRAM 2000 OR SIMILAR APPROVED.

SUB-GRADE:
- SOFT SPOTS TO BE REMOVED AND SUITABLE MATERIAL ROLLED IN, IN 150mm THICK LAYERS.
- SUB-GRADE TO BE COMPACTED WITH A ROLLER OF APPROVED TYPE AND WEIGHT TO PROFILES AND SHAPE. THEN COVERED WITH A LAYER OF NON WOVEN GEOTEXTILE MEMBRANE SUCH AS TERRAM 1000 OR SIMILAR APPROVED.

PRIVATE FARM ACCESS CONSTRUCTION (TARMAC CONSTRUCTION)

SURFACE COURSE:
- 50mm COMPACTED THICKNESS OF 10mm NOMINAL SIZE THIN SURFACE COURSE TARMAC.

BINDER COURSE:
- 60mm COMPACTED THICKNESS OF AC 20 DENSE BIN TO BS EN 13108-1 AND PD6691.
- IT SHALL BE LAID AND THOROUGHLY COMPACTED ALL IN ACCORDANCE WITH BS 594987:2015,
- BINDER TO BE 40-60 PEN.
- IN SITU AIR VOIDS BETWEEN 2% & 7%.

BASE COURSE:
- 300mm COMPACTED THICKNESS OF TYPE 1 SUB-BASE MATERIAL LAID ON TERRAM 1000 GEOTEXTILE OR SIMILAR APPROVED.

PRIVATE FOOTWAY CONSTRUCTION (CONCRETE PAVING SLABS - TO BE AGREED BY ARCHITECT)

SURFACE COURSE:
- 65mm PRECAST CONCRETE PAVING SLAB.

BINDER COURSE:
- 30mm CEMENT MORTAR.

BASE COURSE:
- 150mm COMPACTED THICKNESS OF TYPE 1 SUB-BASE MATERIAL.

GENERAL NOTES

1. THIS DRAWING IS COPYRIGHT ©.
2. ALL DIMENSIONS IN METRES UNLESS OTHERWISE STATED.
3. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT DRAWINGS AND SPECIFICATIONS.
4. ALL WORK SHALL COMPLY WITH THE BUILDING REGULATIONS AND THE REQUIREMENTS OF THE LOCAL AUTHORITY, CURRENT CODES OF PRACTICE AND BRITISH STANDARDS.
5. ALL EXISTING SERVICES, SEWERS AND DRAINS INDICATED ON THIS DRAWING AND ANY OTHER RELATED DRAWINGS ARE SHOWN ONLY INDICATIVELY, AND SHALL HAVE THEIR POSITIONS AND LEVEL CONFIRMED ON SITE BY THE CONTRACTOR.
6. THE INVERT LEVELS OF ALL EXISTING SEWERS, DRAINS, DITCHES, TANKS OR OTHER FEATURES AND APPARATUS WHERE A NEW CONNECTION IS TO BE MADE SHALL HAVE THEIR PRECISE POSITION AND LEVEL CONFIRMED ON SITE BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION WORK, THE RESULTS OF THE INVESTIGATIONS SHALL BE CONFIRMED TO MTC ENGINEERING (CAMBRIDGE) LTD SO THAT THE DESIGN CAN BE VERIFIED.

DRAINAGE NOTES

1. ALL PRIVATE DRAINAGE WORKS TO BE IN ACCORDANCE WITH THE REQUIREMENTS OFBUILDING REGULATIONS 2010, PART H, "DRAINAGE AND WASTE DISPOSAL", (01ST OCTOBER 2015).
2. ALL PIPES TO BE BEDDED AND BACKFILLED IN ACCORDANCE WITH PART H, DIAGRAM 10. SHALLOW PIPES SHALL BE PROTECTED IN ACCORDANCE WITH PART H, DIAGRAM 11.
3. UNLESS OTHERWISE STATED, ALL PRIVATE DRAINAGE TO BE 100MM DIAMETER. GRADIENTS HAVE BEEN SHOWN WHERE THERE ARE PIPE CAPACITY ISSUES AND THESE SHOULD BE REGARDED AS MINIMUMS. UNLESS THERE ARE CONSTRAINTS DICTATING OTHERWISE, GRADIENTS SHALL GENERALLY BE 1 IN 60. 100MM DIAMETER PIPES SHALL NOT BE LAID FLATTER THAN 1 IN 80, 150MM DIAMETER PIPES SHALL NOT BE LAID FLATTER THAN 1 IN 150.
4. ALL PIPES, CHAMBERS AND FITTINGS TO BE INSTALLED STRICTLY IN ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS.
5. PIPES WHICH RUN ADJACENT TO BUILDINGS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH PART H, CLAUSES 2.23 TO 2.25 AND DIAGRAM 8.
6. ALL PRIVATE MANHOLES, INSPECTION CHAMBERS AND DRAINAGE CHANNELS TO COMPLY WITH BS EN124. COVER STRENGTHS TO BE:
   - 6.1. CLASS D400 IN HEAVY TRAFFICKED AREAS (ACCESS ROADS, SERVICE YARDS ETC,)
   - 6.2. CLASS C250 IN LIGHTLY TRAFFICKED AREAS (CAR PARKS, DRIVEWAYS ETC)
   - 6.3. CLASS B125 IN NON TRAFFICKED AREAS
   - 6.4. CLASS A15 IN LANDSCAPING AREAS
7. ALL DRAINS IN THE VICINITY OF EXISTING OR PROPOSED TREES TO BE CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF NHBC PRACTICE NOTE 3.
8. PRIVATE DRAINAGE FRAMES MUST BE TIED TO MANHOLE RISERS BY USE OF MANUFACTURERS TIES (E.G. POLYPIPE REF. FRX500 FIXING KIT AND FRX501 BLACK TIES.) THE GROUND WORKS CONTRACTOR WILL BE HELD FULLY RESPONSIBLE FOR ANY ACCIDENTS DUE TO INCORRECT FITTING OR FAILURE TO USE THE CORRECT MANUFACTURERS FIXING EQUIPMENT.
9. ALL EXISTING LAND DRAINS ENCOUNTERED ON SITE DURING CONSTRUCTION TO BE RE-CONNECTED.
10. AS UNDERLYING GROUND CONDITIONS MAY BE VARIABLE ACROSS THE SITE THE CONTRACTOR SHALL UNDERTAKE ONSITE POROSITY TESTS AT THE LOCATION AND DEPTH OF EACH SOAKAWAY. TESTS SHOULD BE UNDERTAKEN IN ACCORDANCE WITH BRE365 AND RESULTS FORWARDED TO THE ENGINEERS TO ALLOW VERIFICATION OF DESIGNS.

STORM WATER

11. ALL RUN-OFF FROM DOMESTIC ROOFS SHALL DRAIN VIA A SERIES OF SURFACE DRAINAGE SYSTEMS WITH EACH OUTFALL TO CELLULAR SOAKAWAYS. THE SOAKAWAYS AND DRAINAGE SYSTEMS ARE TO REMAIN PRIVATE AND HAVE BEEN DESIGNED TO ACCOMMODATE ALL STORMS UP TO AND INCLUDING THE 100YR + 40% EVENT.
12. ALL PRIVATE DRIVEWAYS AND SHARED ACCESSES SHALL DRAIN VIA PERMEABLE PAVING. THE PAVING SHALL BE DESIGNED BASED ON CBR RESULTS AND TO ACCOMMODATE THE REQUIRED LOADING.
13. THE DESIGN OF EACH SOAKAWAY HAS BEEN UNDERTAKEN ON THE BASIS OF INFILTRATION RATES ESTABLISHED ON SITE BY BRE 365 TESTING. THE RATE USED IN DESIGN IS 0.036 M/HR.

FOUL WATER DRAINAGE

14. DOMESTIC FOUL SEWERAGE FROM ALL PROPERTIES SHALL DRAIN VIA A PRIVATE GRAVITY FOUL WATER DRAINAGE SYSTEM WHICH SHALL DISCHARGE TO THE EXISTING PUBLIC FOUL SEWER AT THE EXISTING MANHOLE CHAMBER FS. CONNECTION WILL BE SUBJECT TO A S106 CONNECTION AGREEMENT WITH THE WATER AUTHORITY.

PRELIMINARY DESIGN
NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION/REASON FOR ISSUE	APPR

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PROJECT
CHAPEL WALK, MOULTON CHAPEL, LINCOLNSHIRE, PE12 0XQ

TITLE
HARD LANDSCAPING PLAN

ORIG	DATE
A.O	AUGUST 2020
CHKD	SCALE 1:500 @ A1
APPR	DRAWING NO 2351-94 REV -

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