



Thursday, August 02, 2012

**CONSTRUCTION DETAILS FOR
'GAF ASPHALT SHINGLE ROOFING SYSTEM' BRANZ.529 2012**

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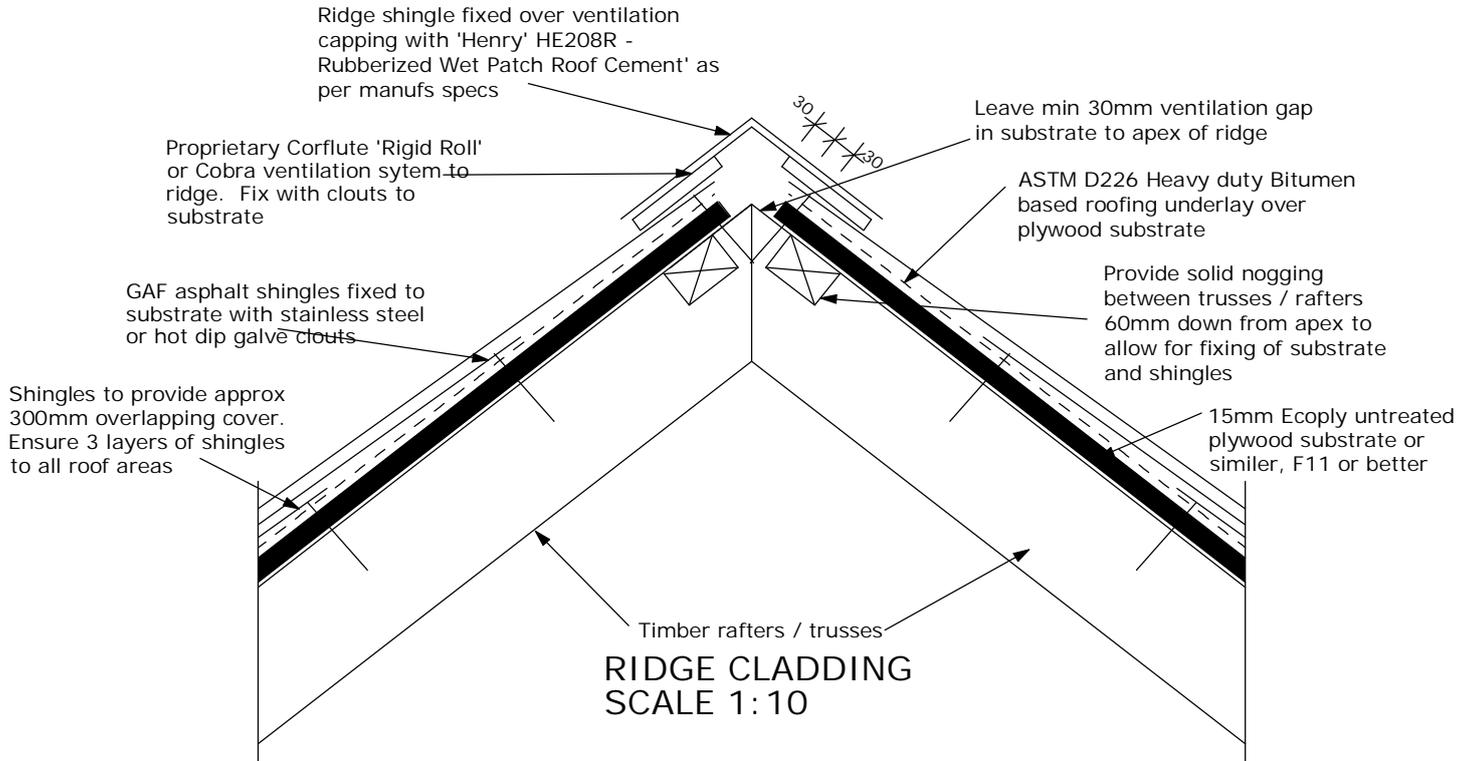
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THESE DETAILS HAVE BEEN COLLATED FOR THE BRANZ APPRAISAL USE ONLY. THEY ARE TO SERVE AS A GUIDELINE FOR CORRECT DETAILING OF 'GAF ASPHALT SHINGLE ROOFING SYSTEM'.

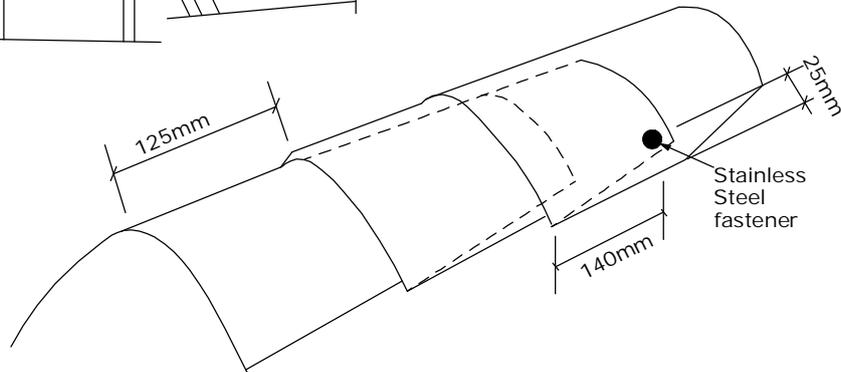
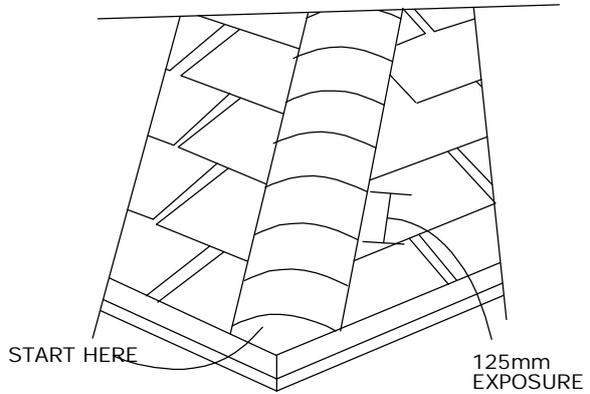
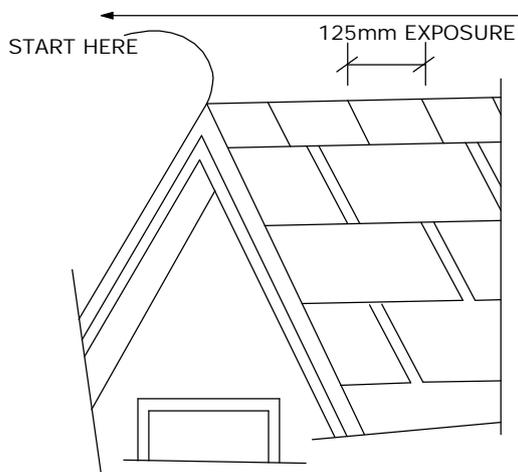
WHERE PRODUCT IS TO BE USED IT IS THE DESIGNERS REAPONSIBILITY TO ENSURE THAT THE CORRECT DETAILS ARE SHOWN ON THE PLANS AND SPECIFICATIONS.

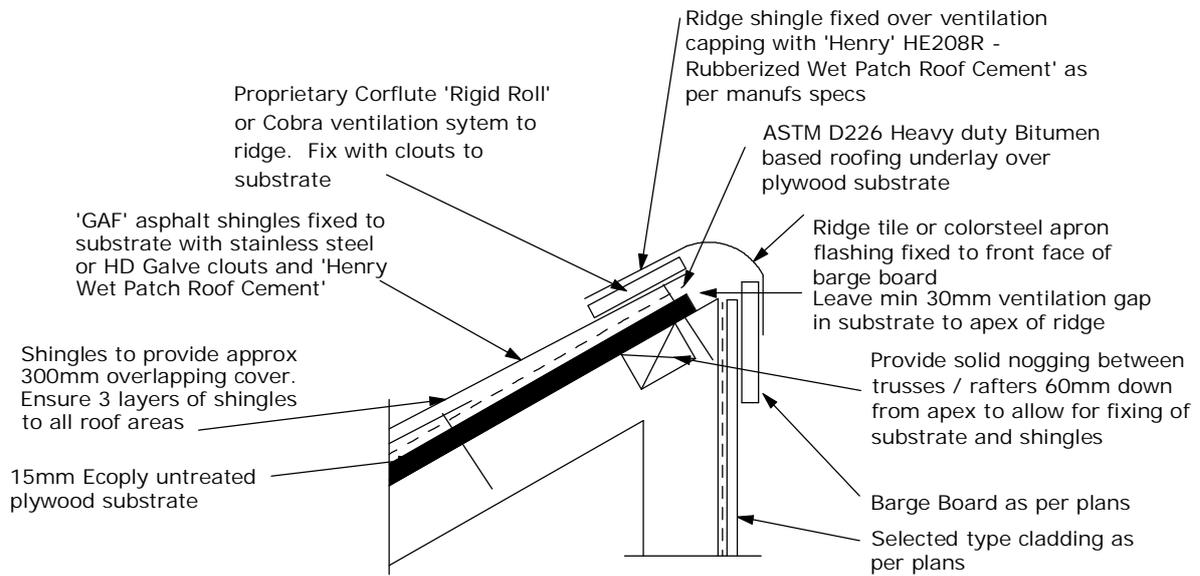
ROOFING LOGISTICS NZ LTD. WILL NOT BE HELD RESPONSIBLE OR LIABLE FOR ANY DAMAGES TO PROPERTY OR PRODUCT INSTALLED IN A MANNER OTHER THAN AS DIRECTED BY A TRAINED AND APPROVED APPLICATOR.

For technical assistance call 0800 GAFELK or visit www.gafelk.co.nz

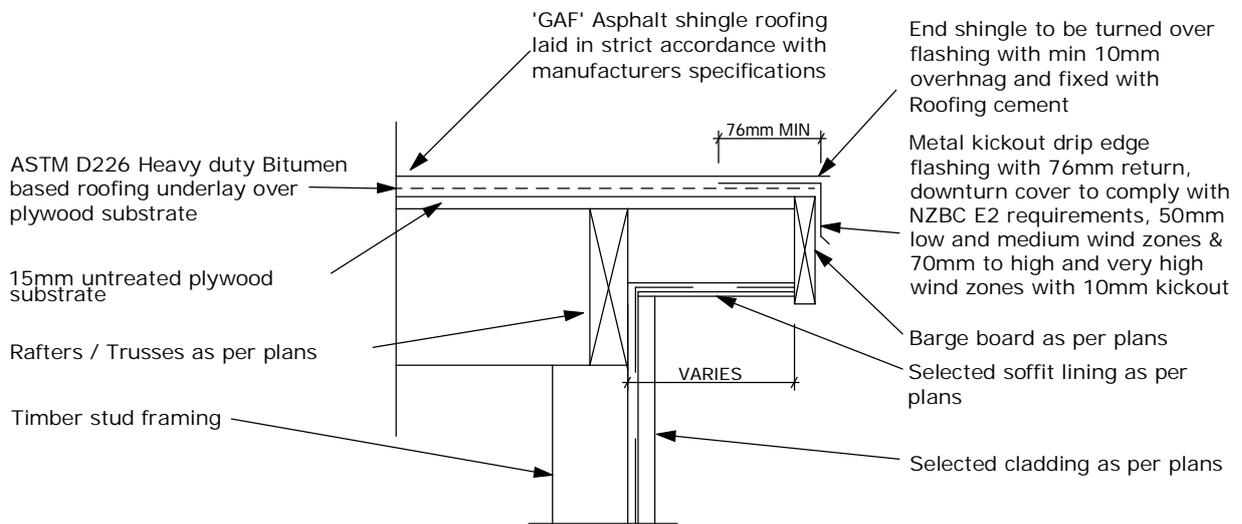


IN ALL SITUATIONS LAY SHINGLES SO LAPS FACE DOWN TO THE DIRECTION OF PREVAILING WIND

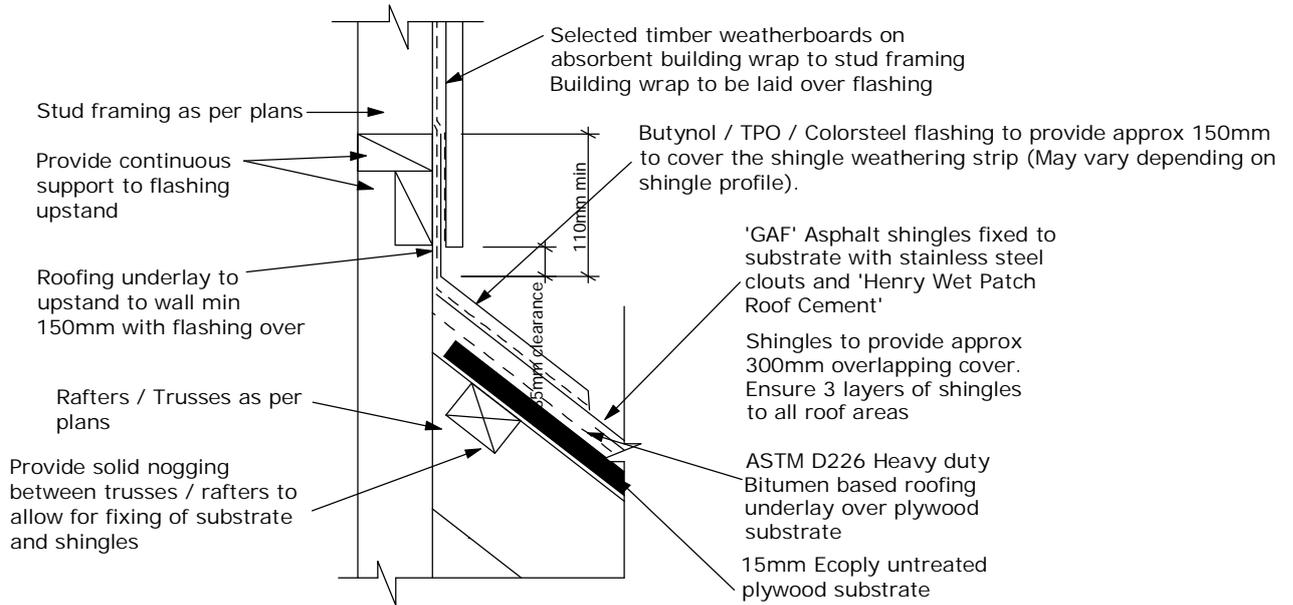




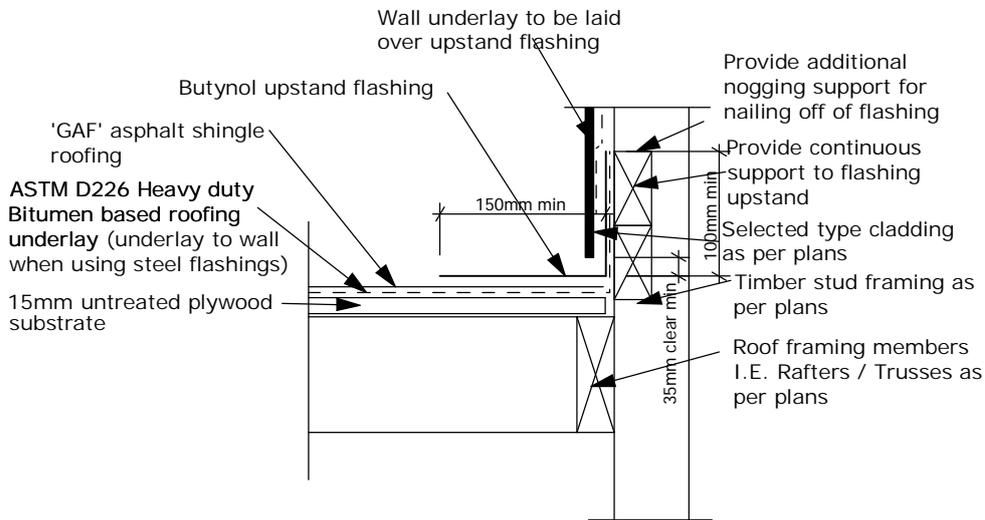
ROOF/WALL RIDGE
SCALE 1:10



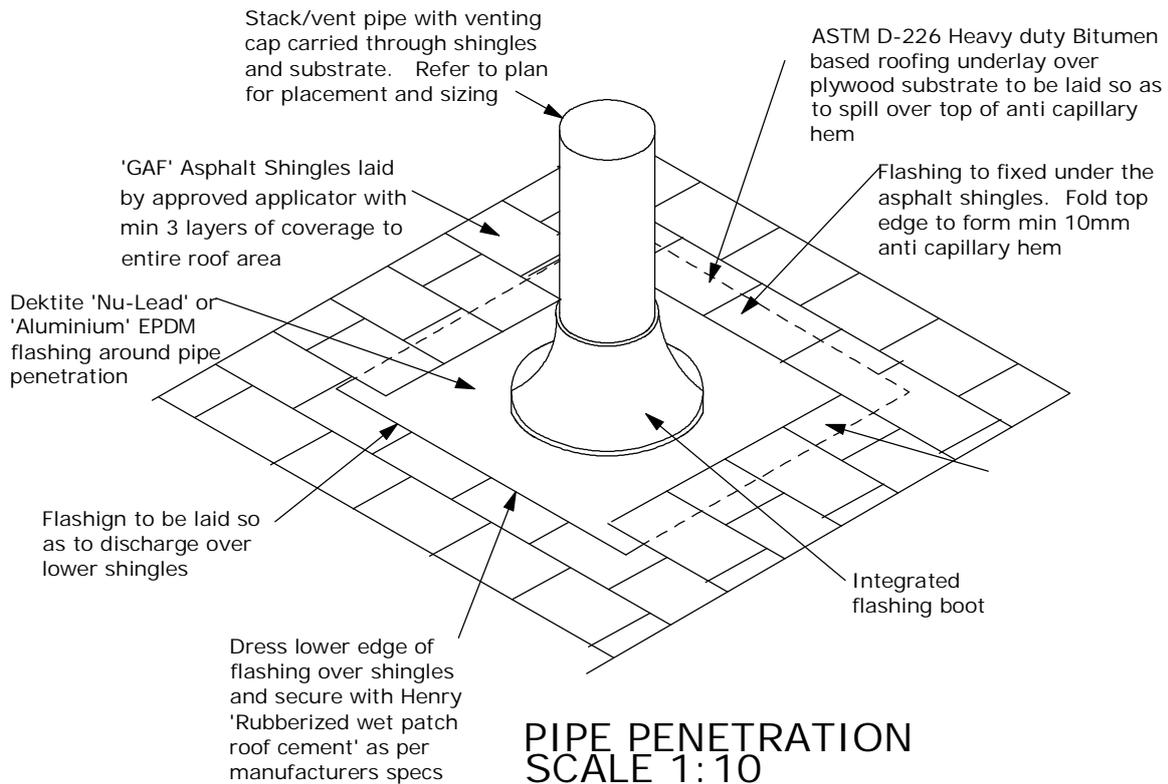
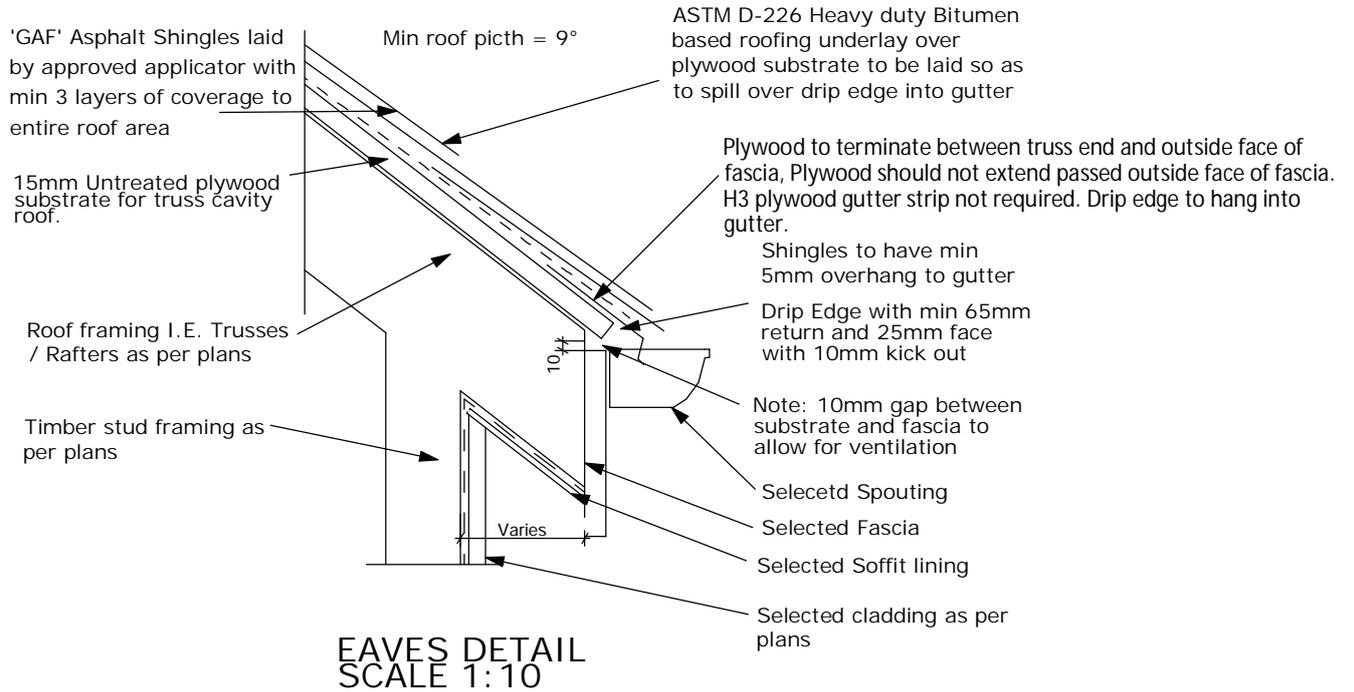
BARGE END
SCALE 1:10

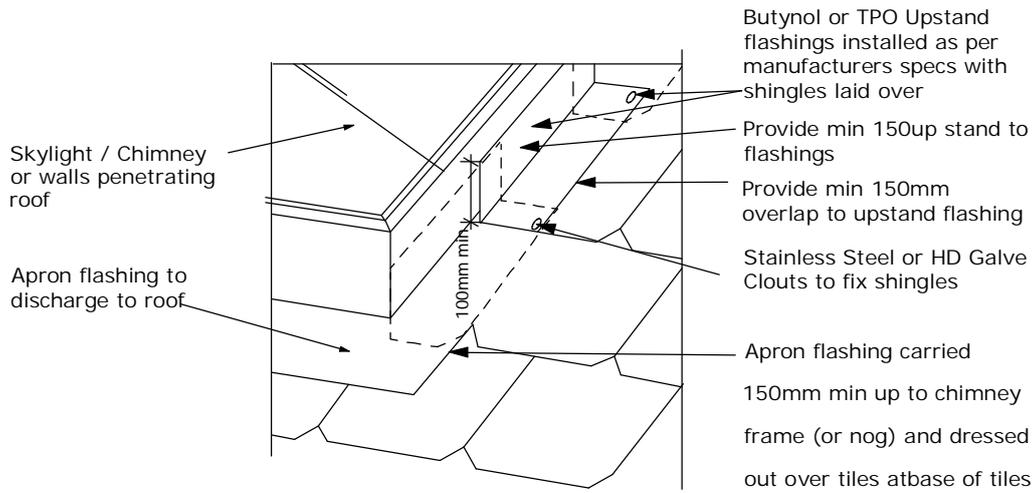


APRON FLASHING - TRANSVERSE
SCALE 1:10

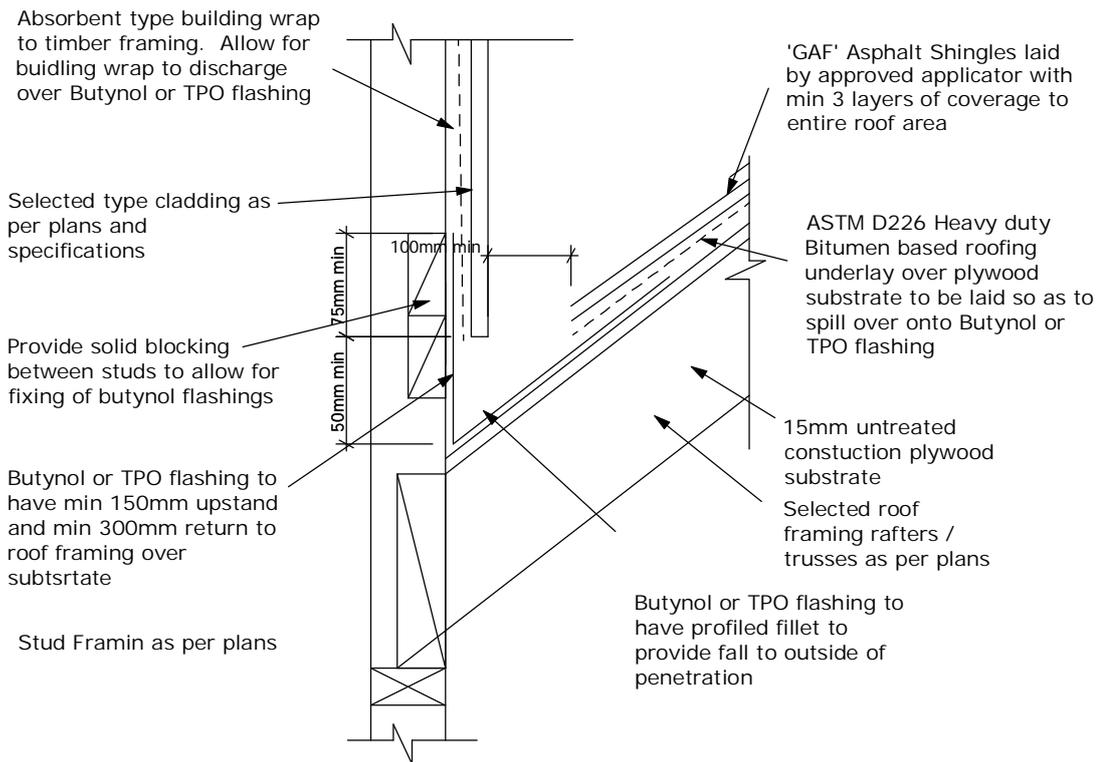


PARALLEL STEP FLASHING
SCALE 1:10

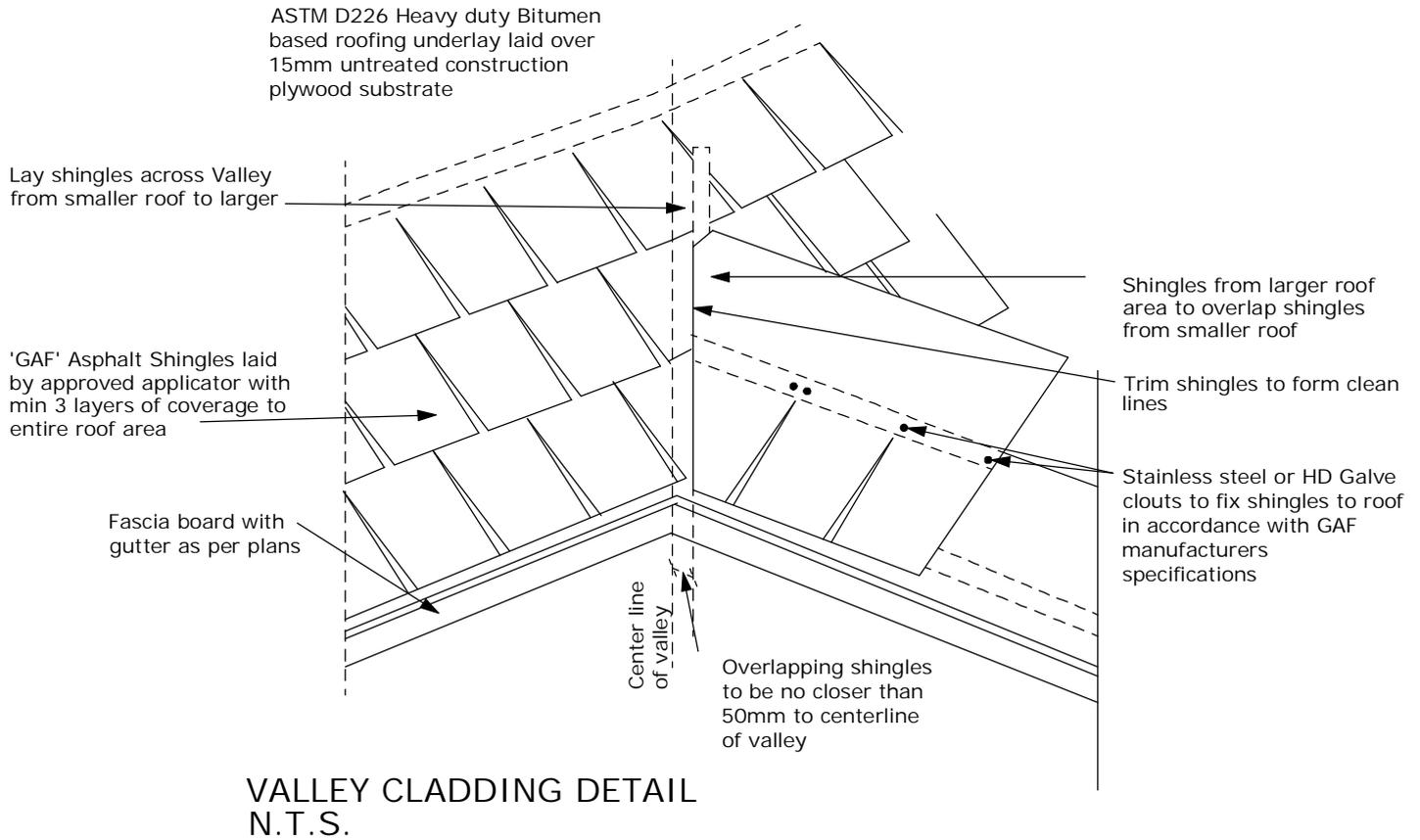
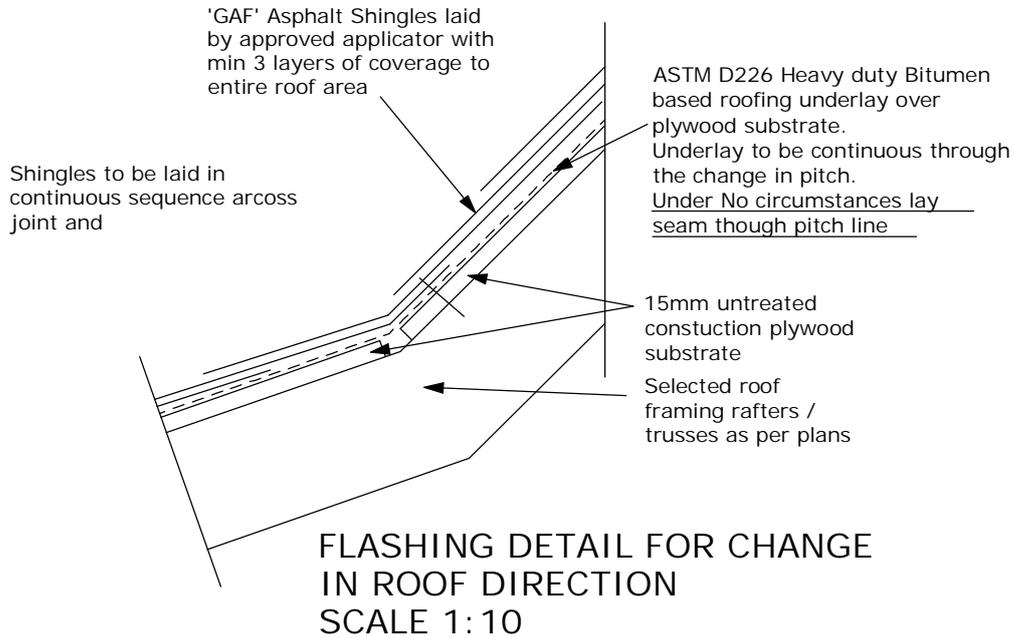


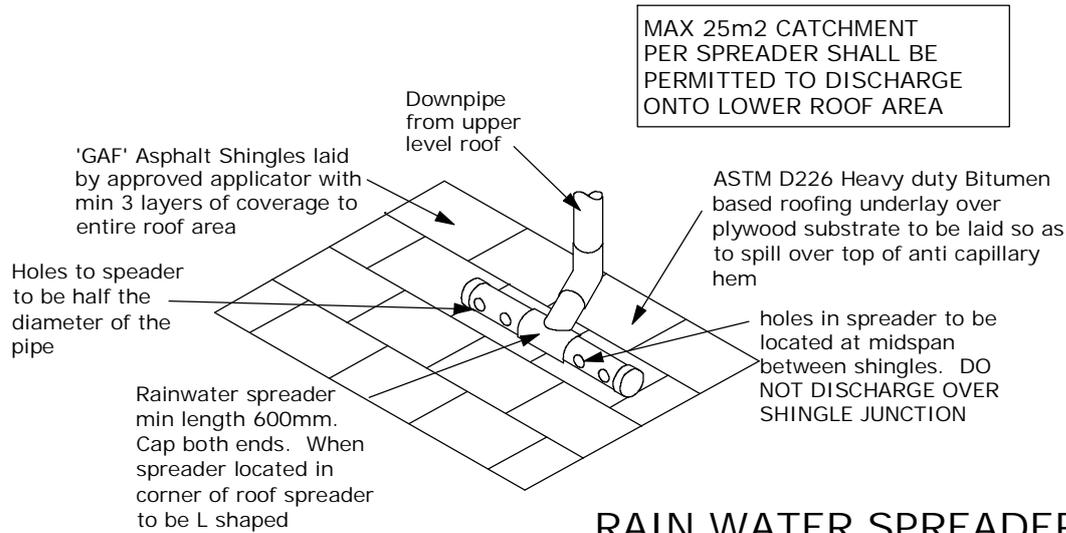


**SPECIFIC PENETRATION
N.T.S.**

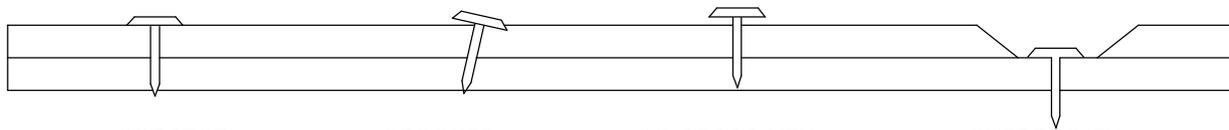


**CHIMNEY FLASHING
SCALE 1:10**





RAIN WATER SPREADER SCALE 1:10



CORRECT

Head flush to shingle.
Tool head perpendicular to shingle during driving

CROOKED

Decreased holding, shingle torn. Prevents next shingle from sealing
SEE REPAIR NOTE 1

UNDERDRIVEN

Decreased holding, shingle torn. Prevents next shingle from sealing
SEE REPAIR NOTE 1

OVERDRIVEN

Decreased holding, shingle torn
SEE REPAIR NOTE 2

REPAIR NOTE 1:
FLATTEN NAIL HEAD TO PREVENT INTERFERENCE WITH NEXT SHINGLE

REPAIR NOTE 2:
DRIVE ANOTHER NAIL NEARBY. SEAL OVERDRIVEN NAIL WITH ASPHALT PLASTIC CEMENT

FASTENERS

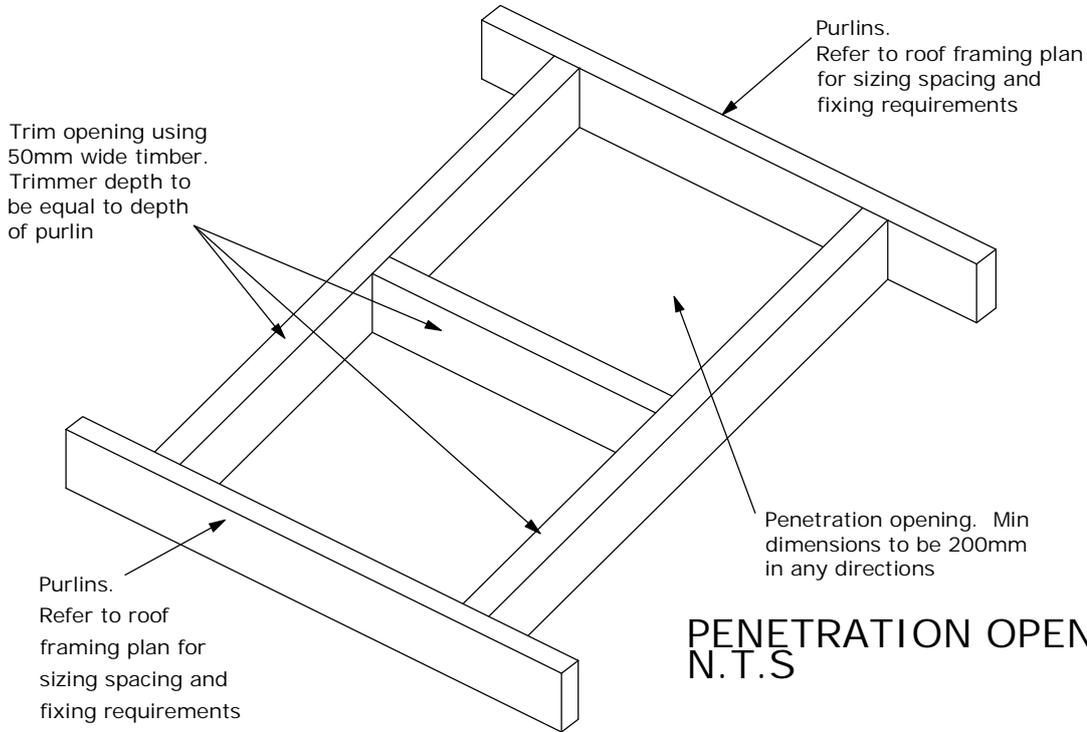
While nailing is the preferred method for fixing raised roof profile shingles, GAFELK will accept fastening methods according to the following instructions and in accordance with GAF specifications:

Allways nail through the fastener line.

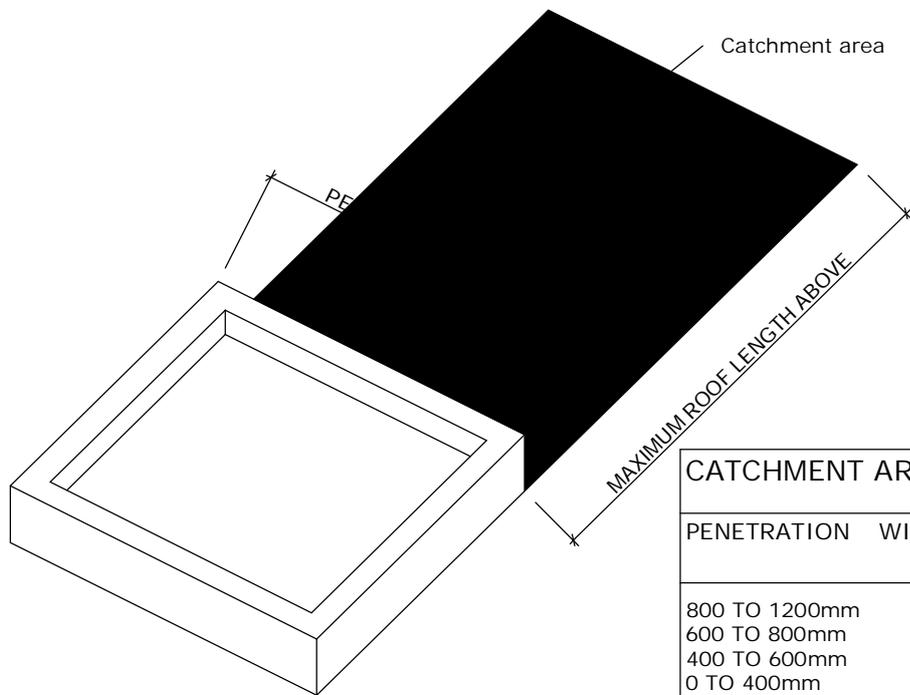
NAILS: refer to NZS 3604:2011 section 4.4 for corrosion protection requirements

10mm Head 12 gauge roofing nails. GAFELK recommends 30mm nails for new roofs and 40mm for roof overs. in cases where you are applying shingles to a roof that has an exposed overhag, for new roofs only 20mm ring shank nails are allowed to be used from the eaves edge to a point up the roof that is past the outside wall line. 25mm ring shank nails are allowed for re-roof.

NOTE: an improperly adjusted nail gun can result in raised nails that can cause a fish mouthed appearance and can prevent sealing



PENETRATION OPENINGS N.T.S



CATCHMENT AREAS		
PENETRATION	WIDTH ABOVE	MAX ROOF LENGTH ABOVE PENETRATION
800 TO 1200mm		4m
600 TO 800mm	6m	
400 TO 600mm	8m	
0 TO 400mm	10m	

1.

Shingle lapped through between ply eave overhang of dormer roof

Valley formed between ply from each roof

Standard stepped flashing up dormer wall

Ply roofing of adjoining Dormer roof

main roof

'GAF' Asphalt Shingles laid by approved applicator with min 3 layers of coverage to entire roof area

2.

Lay single step flashing over junction of shingle and ply from dormer eave

3.

Drip edge metal flashing of Dormer roof plane edge to run over single step flashing

4.

Starter course or Peel and Stick laid on top of metal drip edge flashing and to run through onto main roof to form valley seal.

5.

Shingles from larger roof area to overlap shingles from smaller roof

6.

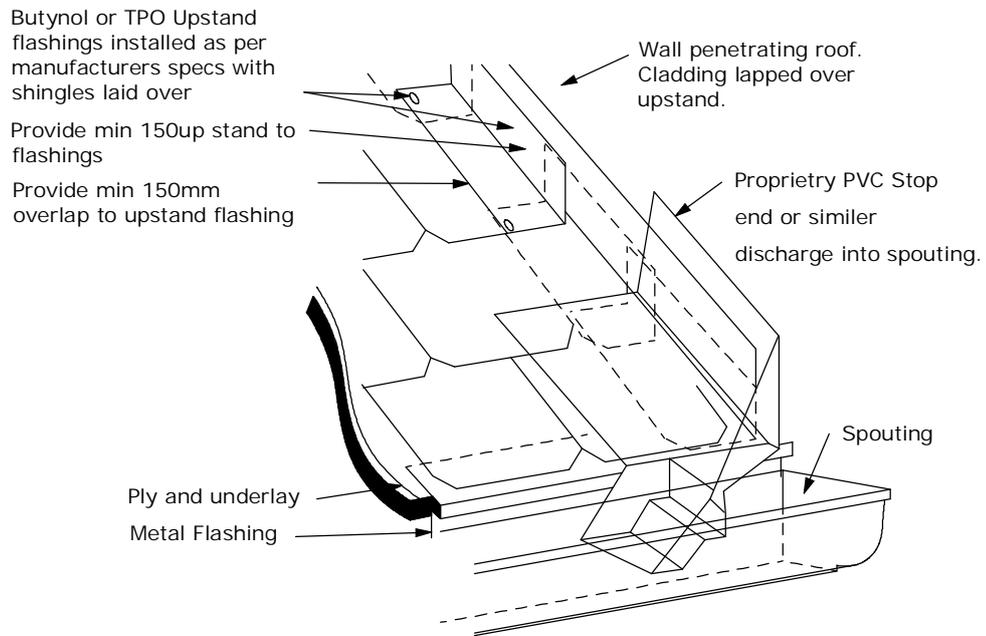
Lay shingles across Valley from smaller roof to larger

First layer of shingle to Dormer roof as per standard laying.

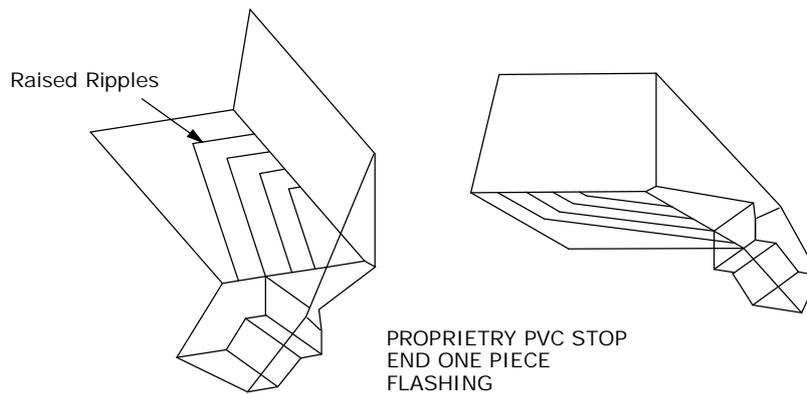
After this step is complete revert to standard valley system

Next layer of shingle as per standard laying to lap over step flashing and peel and stick.

VALLEY TO DORMER DETAIL
STEP BY STEP METHOD 1 - 6



GUTTER WALL JUNCTION N.T.S.



CONSTRUCTION NOTES:

READ THOROUGHLY BEFORE COMMENCING WORKS

ALL MATERIALS TO BE DRY AT THE TIME OF APPLICATION. UNDER NO CIRCUMSTANCES SHOULD ANY MATERIALS BE TORCH DRIED

ALL SARKING AND SUBSTRATE MATERIALS TO BE DRY PRIOR TO LAYING OF WATERPROOF MEMBRANE. ENSURE ALL CONDENSATION AND RAINWATER HAS THOROUGHLY EVAPORATED PRIOR TO COMMENCEMENT OF WORKS.

ALL FLASHING AND FIXING MATERIALS TO BE CORROSION RESISTANT AND APPROVED FOR THE CORROSION ZONE AS SPECIFIED BY THE NEW ZEALAND BUILDING CODE AND NZS 3604:2011

SEA SPRAY ZONES - TYPE 304 STAINLESS STEEL

ALL OTHER ZONES - TYPE 304 STAINLESS STEEL OR HOT DIP GALVANISED WITH ADDITIONAL PROTECTION AS PER NZS 3604:2011 4.4.4 AND 4.4.5 REQUIREMENTS

FOR HIGH, VERY HIGH AND EXTRA WIND ZONES, THE NUMBER OF FIXINGS PER SHINGLE SHALL BE 6 NAILS PER TILE AND ALL SHINGLE RAKES AND EAVES TO BE GLUED WITH APPROVED ROOFING CEMENT

PLYWOOD SUBSTRATE TO BE LAID WITH STAGGERED JOINTS TO SHEET EDGES.

ALL SHEET EDGES SHALL BE SUPPORTED WITH NOGGS OR ROOF FRAMING FOR FIXING UNLESS A STRUCTURALLY TESTED AND APPROVED TONGUE IN GROOVE EDGE SHALL PROVIDE EQUIVALENT OR BETTER SUPPORT. GALVANISED 'H' CLIPS CAN BE USED FOR SQUARE EDGE PLYWOOD.

ALL SHEETS TO BE LAID WITH A 3mm INTER SHEET EXPANSION JOINT

PLYWOOD SUBSTRATE SHALL BE LAID WITH THE FACE GRAIN AT RIGHT ANGLES TO THE SUPPORTS

UNDER NO CIRCUMSTANCES SHALL THE SARKING / SUBSTRATE BE LAID DIAGONALLY

ALL SARKING / SUBSTRATES SHALL HAVE A MAX OF 18% MOISTURE CONTENT AT THE TIME OF APPLICATION OF MATERIALS

UNDERLAY TO BE MIN 15w ASPHALT SATURATED UNDERLAY OR MEETING ASTM D226 STANDARD FOR UNDERLAY USED WITH ASPHALT SHINGLE ROOFING. SEE BRANZ.529 2012

ALL UNDERLAYS TO BE LAID WITH MIN 100mm END LAPS

FIXING SPECIFICATIONS

1 ROOF PENETRATIONS:

ROOF DECKS / SUBSTRATES SHOULD BE DRY, WELL SEASONED 150X25 BOARDS OR EXTERIOR GRADE PLYWOOD

2 UNDERLAY:

APPLY ASTM D226 HEAVY DUTY BITUMEN BASED ROOFING UNDERLAY OVER PLYWOOD SUBSTRATE IN ACCORDANCE WITH NZBC E2 REQUIREMENTS 8.1.5 ALL ROOF UNDERLAYS SHALL HAVE LAPS NO LESS THAN 100mm WHERE REQUIRED, ROOF UNDERLAYS SHALL BE LAID HORIZONTALLY, WITH THE UPPER SHEETS LAPPED OVER LOWER SHEETS TO ENSURE WATER IS SHED TO THE OUTER FACE OF THE UNDERLAY

3 ROOF PITCH

MIN ACCEPTABLE ROOF PITCH = 10°

FOR ROOF PITCHES 10 - 12 DEGREES COMPLETELY COVER ROOF WITH 2 LAYERS OF UNDERLAY IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS FOR ROOF PITCHES 12 DEGREES AND GREATER COMPLETELY COVER ROOF AREA WITH 1 LAYER OF ROOFING UNDERLAY

4 STARTER SHINGLE COURSE

USE AN ELK STARTER STRIP OR A STRIP SHINGLE INVERTED WITH THE HEADLAP APPLIED AT THE EAVE EDGE. WITH AT LEAST 10mm TRIMMED FROM THE END OF THE FIRST SHINGLE, START AT THE RAKE EDGE OVERHANGING THE EAVE 12mm TO 20mm. FASTEN 50mm FROM THE LOWER EDGE AND 25mm FROM EACH SIDE. SHINGLES MAY BE APPLIED WITH A COURSE ALIGNMENT OF 45° ON THE ROOF

1. FIRST COURSE

START AT RAKE AND CONTINUE COURSE WITH FULL SHINGLES LAID FLUSH WITH THE STARTER COURSE

2. SECOND COURSE

START AT THE RAKE WITH THE SHINGLE HAVING 145mm TRIMMED OFF AND CONTINUE ACROSS ROOF WITH FULL SHINGLES

3. THIRD COURSE

START AT THE RAKE WITH THE SHINGLE HAVING 285mm TRIMMED OFF AND CONTINUE ACROSS WITH FULL SHINGLES

4. FOURTH COURSE

START AT THE RAKE AND CONTINUE ACROSS WITH FULL SHINGLES ACROSS ROOF.

5. FIFTH AND SUCCEEDING COURSES

REPEAT THE APPLICATION AS SHOWN FOR SECOND, THIRD AND FOURTH COURSES
DO NOT RACK SHINGLES STRIGHT UP THE ROOF

5 FASTENERS

ALLWAYS NAIL THROUGH THE FASTENER LINE SHINGLING NAILS: STAINLESS STEEL GUN NAILS WITH 19mm HEAD, SEMI RING SHANKED, 32mm OR 25mm IN LENGTH WITH A 3mm DIAMETER SHANK. ELK RECOMMENDS 30mm FOR NEW ROOFS AND 40mm FOR ROOF OVERS. IN CASES WHERE YOU ARE APPLYING SHINGLES TO A ROOF THAT HAS AN EXPOSED OVERHANG, FOR NEW ROOFS ONLY, 20mm RING SHANK NAILS ARE ALLOWED TO BE USED FROM THE EAVES EDGE TO A POINT UP THE ROOF THAT IS PAST THE OUTSIDE WALL LINE 25mm RING SHANK NAILS ALLOWED FOR REROOF NOTE: AN IMPROPERLY ADJUSTED NAIL GUN CAN RESULT IN RAISED NAILS THAT CAN CAUSE A FISHMOUTHED APPEARANCE AND PREVENT SEALING FASTENERS SHOULD BE LONG ENOUGH TO OBTAIN A 19mm PENETRATION OR PENETRATION THROUGH SUBSTRATE, WHICHEVER IS LESS

For technical assistance call 0800 GAFELK or visit www.gafelk.co.nz