HUMANNE HOMES
AFFORDABLE TECHNOLOGY

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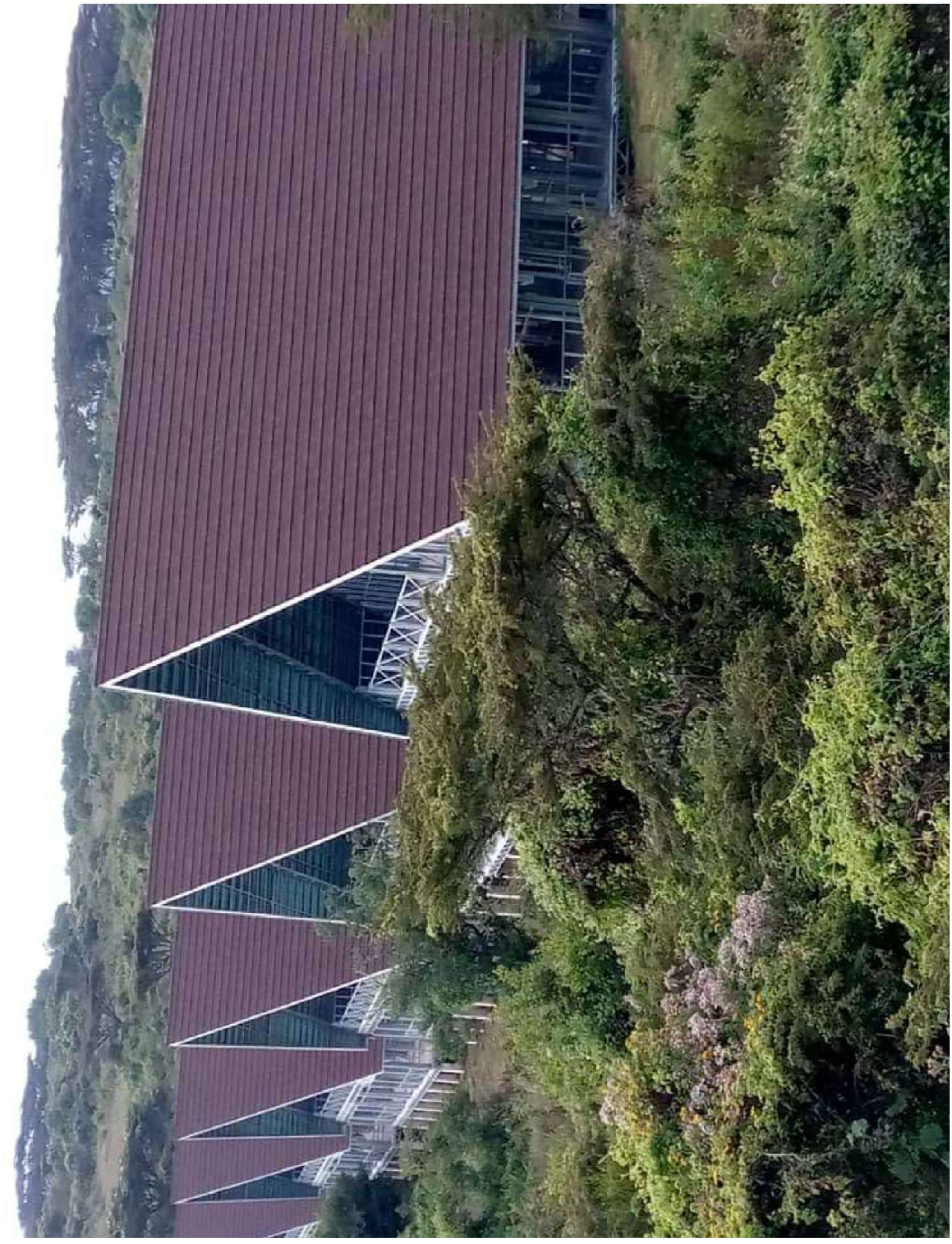


www.humannehomes.com

TABLE OF CONTENTS.

OUR AIM

“To provide a quality home at the best value for the money.
We aim to ensure that your transition to your new home is both enjoyable and fulfilling”

OUR BELIEF

“Our belief is that our client's "word of mouth" recommendation is the most powerful way of securing new business”

The system was developed around 1850 and gained significant traction in North America by 1946.

Today, several countries continue to employ this system, including:
USA, Canada,Western and Eastern Europe, China, Austria, New Zealand, India, Malaysia, Indonesia, South Africa, Gulf countries, and Algeria.

What is Cold Formed Steel?

This process involves carefully applying force to the metal, allowing it to bend without cracking or breaking, resulting in a product that is both durable and reliable. Cold-forming is often used in industries such as automotive, construction, and aerospace, where strength and precision are paramount.

One of the key advantages of cold-forming is its ability to enhance the mechanical properties of the steel. As the material is bent, its grain structure is altered, leading to increased hardness and resilience. This makes cold-formed steel components particularly useful in applications where high performance and longevity are required.

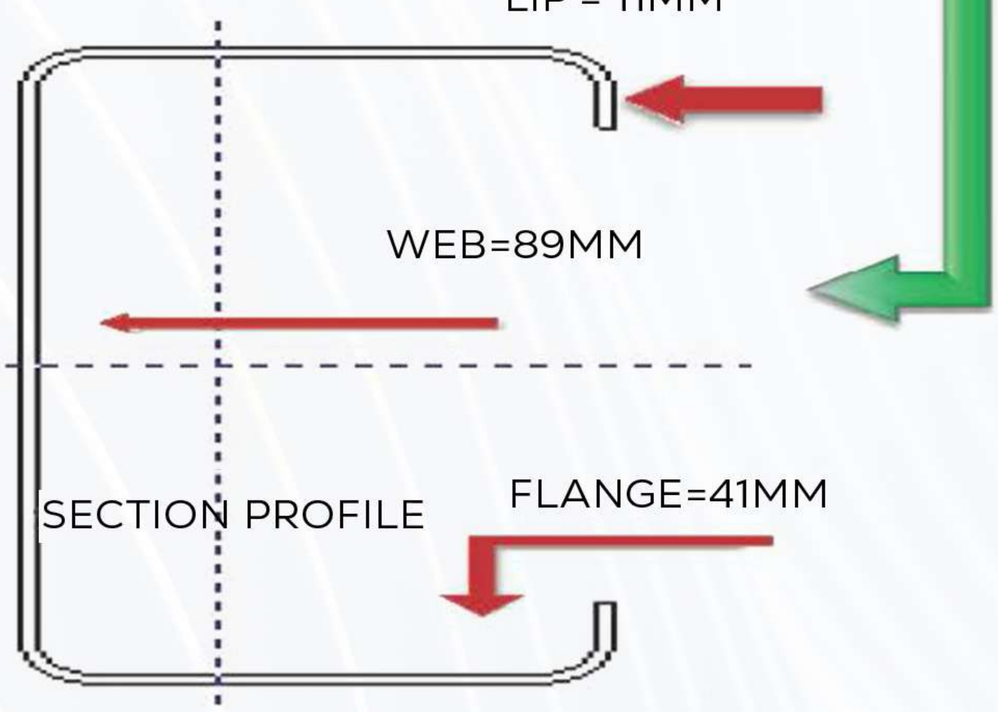
Moreover, cold-forming is an environmentally friendly process. It typically requires less energy than hot-forming techniques, since there is no need to heat the metal to high temperatures. This not only reduces the carbon footprint of the manufacturing process but also helps in maintaining the material's original properties without the risk of thermal distortion.

In summary, cold-forming is a versatile and efficient method for producing strong, reliable steel components. By leveraging the benefits of this technique, industries can create products that meet stringent performance standards while also promoting sustainable manufacturing practices.

SLITTED COILS

ROLL FORMER

ASSEMBLED TO ERECT STRUCTURE



SECTION PROFILE

CFS DESIGNING INVOLVES

- DESIGN CRITERIA
- BUILDING CODES
- STANDARD CFS CODES -CERTIFICATION
- USAGE OF CFS FRAMING

Wind Resistance
0.85 kN/m2 Basic, 209 km/hr Speed

Imposed Loads (Live Loads)
3.0 kN/m2

Earthquake Resistance
8 Degrees Basic earth - quake speed 0.4g

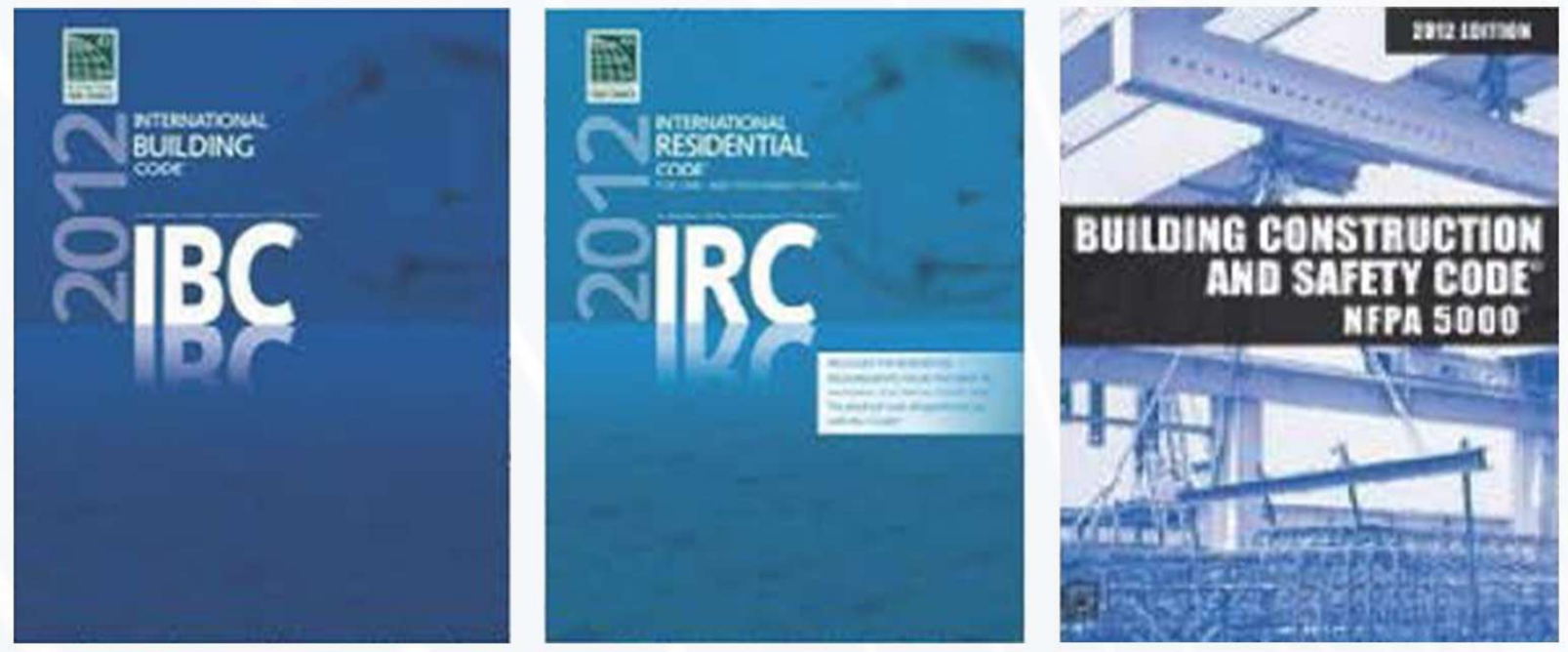
Exterior Wall Shock Resistance
250kg Concentrate shock

Fire Proof
1 to 2hr by different designs

CODES MET

- SASFA
- International Building Code
- International Residential Code
- Building Construction and Safety Code
- NFPA 5000

COLD-FORMED STEEL FRAMING IS CODE APPROVED (IRC, IBC, CABO AND ICC).

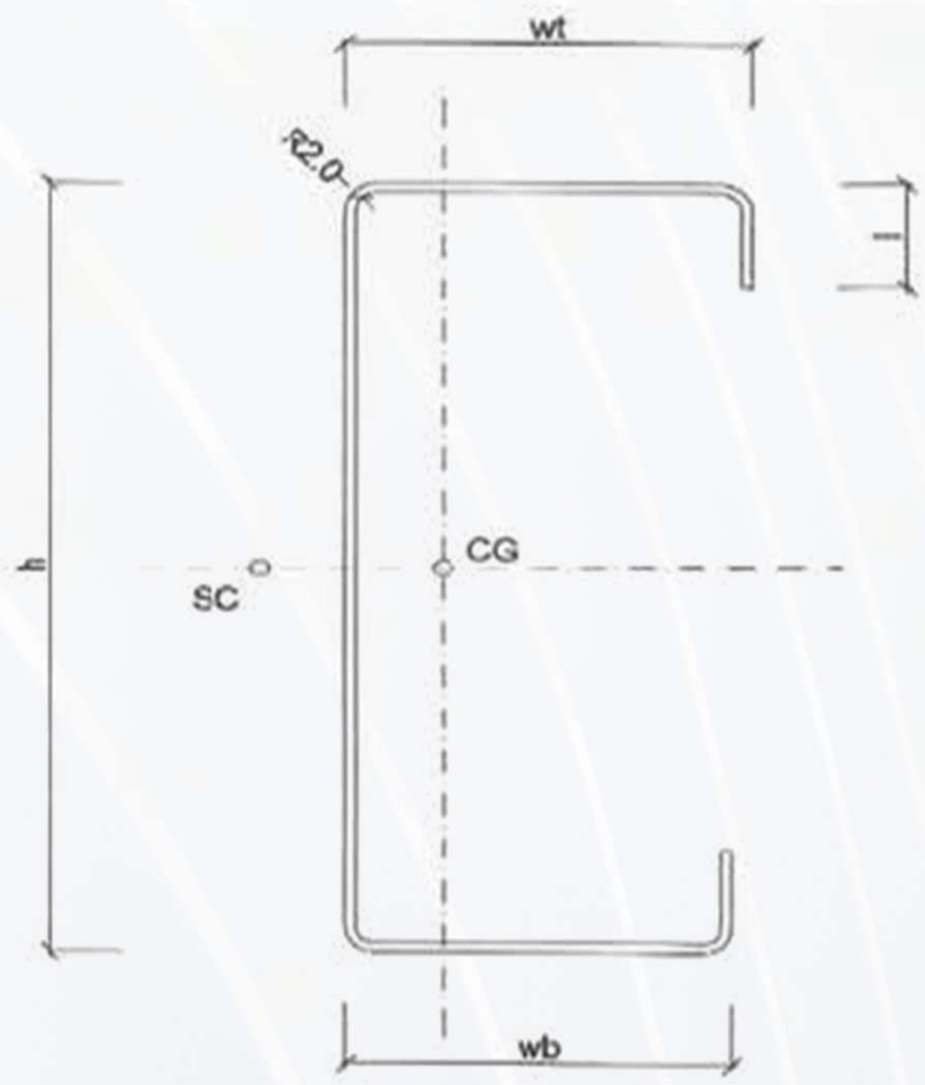


A TECHNOLOGY THAT CAN REVOLUTIONIZE THE CONSTRUCTION INDUSTRY

STEEL PROPERTIES

Lipped Coe Section Properties

Name			S8975	S8995	S8912
Grade			G550	G550	G550
Coating			AZ150	AZ150	AZ150
Yield Stress	fy	Mpa	550	550	500
Tensile Strength	fu	Mpa	550	550	520
Height	h	mm	89.0	89.0	89.0
Width Top	wt	mm	41.0	41.0	41.0
Width Bottom	wb	mm	39.0	39.0	39.0
Thickness	t	mm	0.75	0.95	1.15
Lip Top	l	mm	10.1	10.6	11.1
Feed		mm	182.0	182.0	182.0
Area		mm2	136.5	172.9	209.3
Mass		kg	1.072	1.357	1.643
Second Moment of Area Ix		mm4	174103	219213	263748
Second Moment of Area Iy		mm4	29996	37985	45959
Radius of Gyration rx		mm	35.7	35.6	35.5
Radius of Gyration ry		mm	14.8	14.8	14.8
Centrold Postion x		mm	12.6	12.7	12.8
Centrold Position y		mm	44.0	44.0	44.0
Shear Centre xo		mm	33.2	33.6	34.0
Shear Centre yo		mm	0	0	0
Polar Radius of Gyration ro1		mm	43.6	43.6	43.6
Tortion Constant J		mm4	25.6	52.1	92.4
Warping Constant Iw		mm6	48912422	62199319	75573890
Sectional Modulus Zxt		mm3	3957	4982	5994
Sectional Modulus 2xb		mm3	3869	4871	5861
Sectional Modulus Zyt		mm3	2381	2991	3591
Sectional Modulus Zyb		mm3	1056	1342	1630



All calculations to AS/NZS 4600:1996

Design & Building of Residential houses of any sizes,
Warehouses & Godowns of any sizes and quantities
Reduce Labour cost, Waste, Labour workforce camps
of any sizes and quantities

OPTIMUM DESIGN PARAMETERS FOR CFS

- Clear Spans range between 3 to 15 meters.
- Clear Truss spans range between 14 to 22 meters.
- Joists depth varies from 250 mm to 450mm, based on span requirement.
- Can be used to run services.
- Height of single wall range from 3 to 6 meters.
- Cantilever spans of 1.5 meters can be achieved.
- Building height can be up to 15 meters.
- Sunken slabs are not required as open web joists
- All Cladding options are possible.
- Modular design creates efficiency however off centric load bearing structures can be achieved.

LIGHT GAUGE STEEL

- Fully automatic production line with tolerance ± 0.5mm
- Automatic bending, Cutting, Punching, Accuracy ± 0.5mm
- G550 - Z275 Steel

ROOF SYSTEM

WALL SYSTEM

FLOOR SYSTEM

FAQs regarding CFS	Answers
Life of the building and durability using CFS framework.	Expected life span of 100 years or so whilst durability is subject to 'abuse by user.
Waterproofing and patches on walls	The method / material used and workmanship takes care of these issues.
External and internal finishes	Treatment using 'stucco', tiles, stones, paints etc works well on the cladding and have cleaner lines than brick walls.
Hollow sound/ sound transfer in wall structures	Filling the cavity with Rockwool Insulation or CLC takes care of the STC , above the codes. Floor 'heel sound' transfer can be treated with usage of acoustic lining on floor before tiling.
Insulation leading to energy savings	The infill material and has a substantial improvement over the brick wall.
Door and window finishes	Better due to accuracy of openings.
USPs and weaknesses for DRY WALL Constructions	Time factor and increase of carpet area being USP, whilst weakness is that designs need to be frozen before starting detailing and execution.
CFS framework construction more expensive than RCC construction	Under present market prices, the direct construction costs are at PAR, but CFS could lead to a higher ratio of Carpet to built- up area. The Financial interest burden of RCC construction because of time factor greatly reduces in CFS framework construction

Component	**Min. Coating Requirement**
Structural	**Z180**
Non- Structural	**Z120**
Severe Environments	**Z275 / ZAM290**

OUR SOLUTION APPLIES TO ALL SEGMENTS OF THE CONSTRUCTION INDUSTRY AND IS DIVIDED INTO SEVERAL SEGMENTS:

INSTITUTIONAL

- Universities
- Schools
- Medical Center
- Religious
- Hospitals

RESIDENTIAL

- Single Family
- Multi-Family
- Assisted Living
- Military Housing
- Manufactured & Modular Housing
- Apartments & Condominiums

COMMERCIAL

- High-Rise
- Mid-Rise
- Low-Rise
- Retail
- Office Buildings
- Warehouses
- Hotels/Motels
- Industrial Facilities

CASPIAN LABOUR CAMP

CFS STRUCTURE

FINISHED PRODUCT

OFFICE BUILDING

CFS STRUCTURE

FINISHED PRODUCT

VERTICAL EXTENSION BUILDING

CFS STRUCTURE

FINISHED PRODUCT

CAMP – MASS HOUSING

CFS STRUCTURE

FINISHED PRODUCT

WAREHOUSE BUILDING

CFS STRUCTURE

FINISHED PRODUCT

SCHOOL BUILDING

CFS STRUCTURE

FINISHED PRODUCT

DORMITARY BUILDING

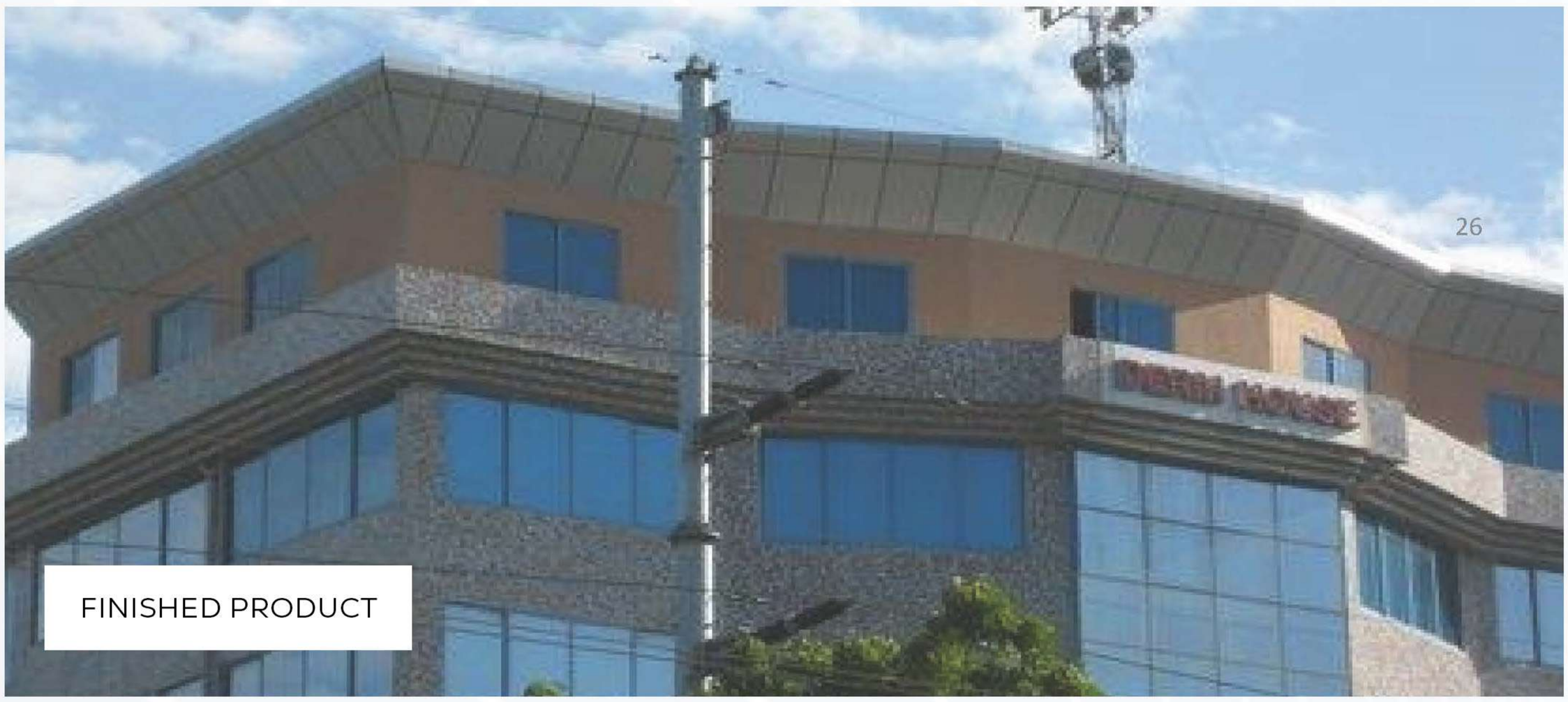
VILLA BUILDING

CFS STRUCTURE

FINISHED PRODUCT

VERTICAL EXTENSION

CFS STRUCTURE



FINISHED PRODUCT

600+ PROJECTS

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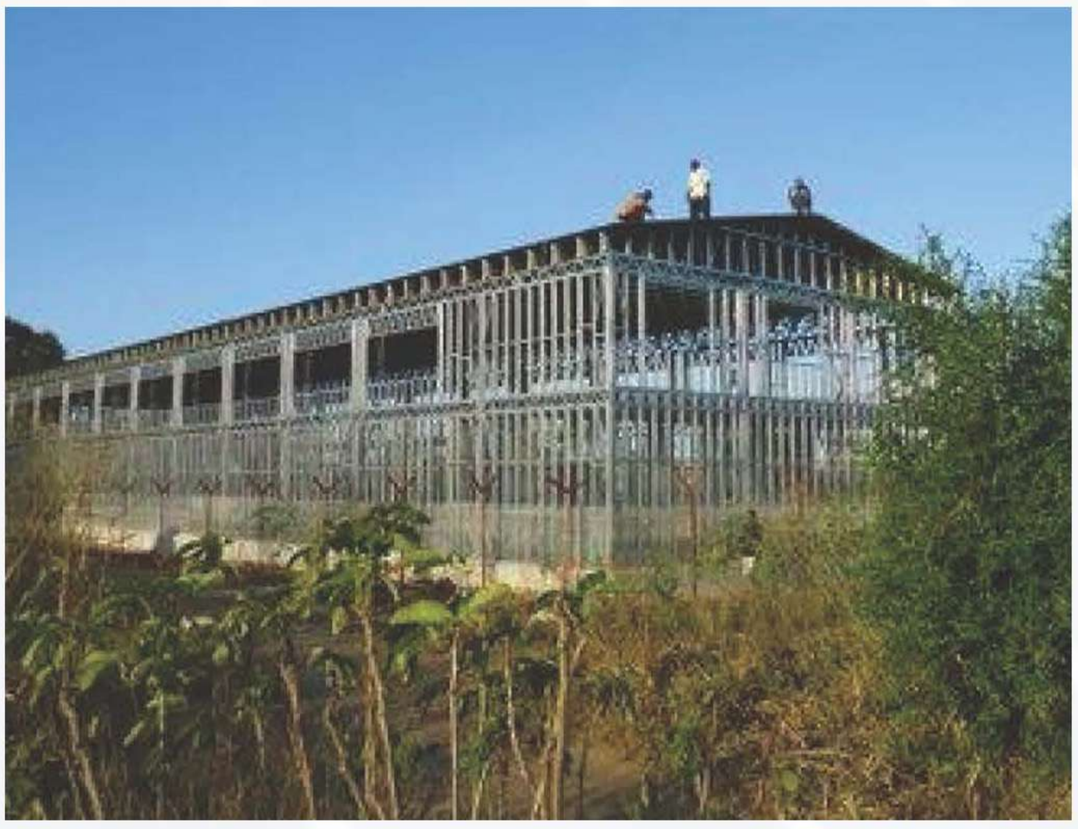

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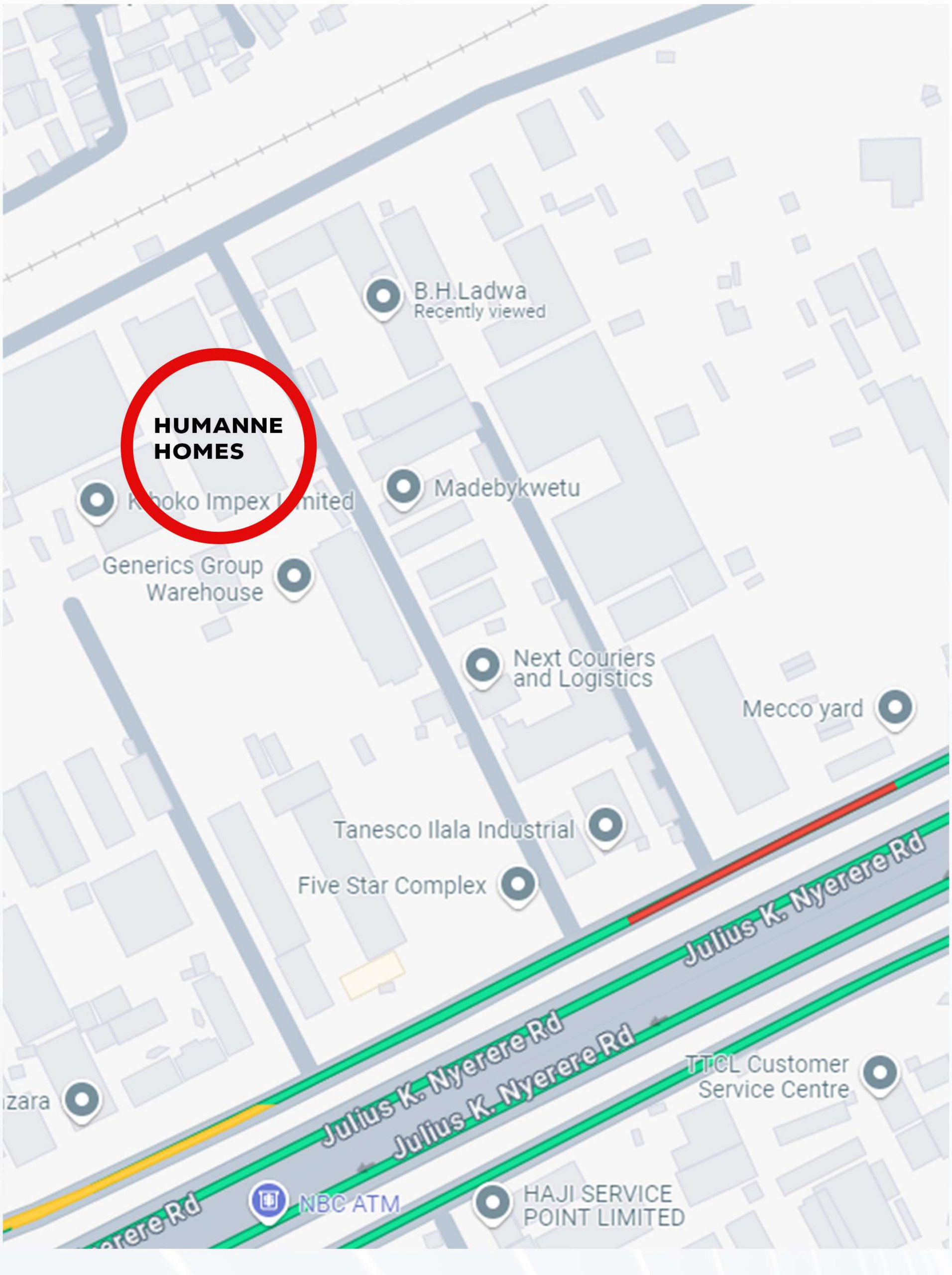

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