

**Scott Wilson Scotland: A History**

**Volume 2**

**The Beginning [and 'The Vision'] 1960-1962**

**A Glasgow Office and 'A Highway Plan for Glasgow'**

**JP McCafferty**





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### The Beginning [and 'The Vision'] 1960-1962 A Glasgow Office and 'A Highway Plan for Glasgow'

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#### 1. Scott & Wilson, Kirkpatrick & Partners: Consultants to The Corporation of the City of Glasgow

[Nicol; Grace; Hodgen; Bruce; Fratar; A New Ring Road; Glasgow Dev Plan; Comp Dev Areas (CDAs); Bruce Report 1945; Abercrombie Report 1946; an urban motorway; Tippets-Abbett-McCarthy-Stratton (TAMS)]

In January 1960, Ron Nicol, the Chief Planning Officer of The Corporation of the City of Glasgow, telephoned Henry Grace at the London Office of Scott and Wilson, Kirkpatrick & Partners with a request that the Firm provide advice on traffic studies for a new ring road for Glasgow! How and why The Corporation of the City of Glasgow should have decided on SWK as a potential or favoured consultant is currently lost in the mists of time but it may have been based on knowledge that the Firm had established a specialist Roads Section in London in 1957 and had been appointed consultants for the South Cheshire Motorway [now part of the M6]. Another possibility is that the Scottish Development Department Roads Directorate, which was part of the Department of Transport, may have suggested SWK based on knowledge of the Firm and contacts with it in London.

Recognising the importance that would be placed on traffic and transportation experience as traffic growth accelerated during the 1940s and 50s, the young Roy Hodgen had been selected by SWK to undertake a year's post-graduate study in transportation planning at Yale University, New Haven, Connecticut, USA. At that time, USA was recognised as being at the forefront of knowledge, experience and study of traffic-related matters.

During 1960, The Corporation of the City of Glasgow published the Glasgow Development Plan Quinquennial Review, the main thrust of which was urban renewal and slum clearance using comprehensive development areas (CDAs); but it also recognised the growing traffic problems in the inner city and the opportunity to plan an inner ring road similar to that proposed by City Engineer, Robert Bruce, in the Bruce Report of 1945 and separately in the Abercrombie Report of 1946. Consequently, the Quinquennial Review included statements as follows:-

“(a) that having regard to the anticipated increase in the volume of traffic in the next 15 years, an Inner Ring Road will be essential for the City.

(b) that the said road will require to be of the scale and purpose of an urban motorway rather than a multi-purpose traffic road.

(c) that the construction of the entire road, including a proposed new bridge over the River Clyde at Ferry/Shearer Street [subsequently the Kingston Bridge] should, if possible be completed within the next 10 years.”

On meeting the Chief Planning Officer for Glasgow, Henry Grace explained that the Firm had no experience of urban road design or traffic and transportation planning but added that no other British consultant had any appropriate experience in this field either. However, Grace's trump card was that he was able to advise that one of his bright young men, Roy Hodgen, was about to return from a post

graduate transportation planning course in America and that, furthermore, the Firm would be able to bring American expertise and experience to bear on the issues.

As events appeared to be moving fast, **Henry Grace** wrote to **Roy Hodgen** at Indian Neck, Connecticut, on 1 February 1960, advising “Things are beginning to move here and it may be that we shall want you back just as soon as you have finished your course at Yale.....last week the Chief Planning Officer of Glasgow rang up and asked us to advise him on traffic studies in connection with **a new ring road for Glasgow**” going on to suggest that ‘Hodgen’ [in those days letters were addressed, in the now seemingly quite archaic manner, to Dear Hodgen or Dear Grace!] should try to get some practical experience of a metropolitan transportation study before he returned from America!

**Henry Grace** was later able to inform the City of Glasgow that the Firm had entered into an association with the **New York based consultants Tippetts-Abbett-McCarthy- Stratton (TAMS)**, recognised experts in transportation matters, and that one of their partners, **Tom Fratar**, was willing to come to Glasgow to give advice on the project. He added that, as **Tom Fratar's** charging rates would be rather high compared to his own, SWK would be willing to meet half the cost, an offer, it was later learned, that greatly impressed the City of Glasgow and was, of course, immediately accepted.

It was from this beginning, SWK's first substantial project in transportation planning, that the Firm's expertise in this field grew and from which sprung, in due course, SWK Scotland.

## 2. The Glasgow Office is Established 1960

**[Hodgen; Cullen; 252 High Street; 4 Park Gardens; Glasgow Inner Ring Road (GIRR); Remit extended 1961; Holford Assoc; TAMS; Munro; Greater Glasgow Transportation Survey (GGTS); Townhead Interchange Stage 1; Holmes; Munro; Stamper; Watson]**

**Robert (Roy) Hodgen** was born in Belfast in 1928. He was educated at Methodist College, Belfast and then, at Queens University, Belfast, where he graduated with a 1st in Civil Engineering in 1950 and an MSc in the relatively new discipline of Soil Mechanics in 1951. Later in 1951, Roy joined Scott and Wilson, Kirkpatrick & Partners in Nyasaland, now Malawi, on roads and water supply projects. In 1956, he immigrated to Canada to pursue his interests in Soil Mechanics with De Leuw Cather and then Cementation. While in Montreal, Roy married Pat whom he had originally met in Belfast but was also then working in Canada. In 1958, **Henry Grace** and **Mervyn Johnstone** persuaded Roy to re-join SWK in the newly opened Lagos Office, with responsibility for roads projects. It was while he was in Nigeria that **Henry Grace** invited his protégé, **Roy Hodgen**, to take up the post-graduate studies in Traffic Engineering and Planning at Yale University, Newhaven, Connecticut, USA, in September 1959. Earlier in 1959, **Ernest Marples** had announced to Parliament that he had secured four places in Traffic Engineering and Planning at Yale with a view to doing something to alleviate growing transport problems throughout the UK. Roy, it is said, was known as Mr 100% while at Yale. The other three places went to local government staff who, according to Pat Hodgen (who accompanied Roy to Connecticut), seemed a bit ‘dead beat’ and rather too interested in the next tea break! While at Yale, the four candidates were supported by ‘buddy families’, usually Yale academics, who helped them settle into the local community and keep them on track academically. At the time, USA was recognised as being at the forefront of knowledge, experience and study of traffic-related matters.

And so, it came to pass, that **Roy Hodgen** received the aforementioned letter of 1<sup>st</sup> February 1960 from **Henry Grace** asking him to hurry back to Glasgow as soon as his studies at Yale were finished, stopping only to get some experience of a metropolitan transportation study before leaving America.

**Roy Hodgen** duly arrived in Glasgow in July 1960, where he was given a temporary home in the City of Glasgow Planning Department. SWK's terms of reference were “to proceed immediately with a

limited traffic study which would provide sufficient data for the design of The Inner Ring Road and to produce as a matter of urgency a definitive design for the Inner Ring Road”.

Things continued to move fast, Roy Hodgen produced his first progress report on 31 August 1960 and was joined by a new recruit, John Cullen, on 5 September.

By the end of September 1960, SWK had moved to a temporary office at 252 High Street and, in December 1960, moved to a permanent address at 4 Park Gardens, Glasgow, thus establishing the new branch office in Scotland.

**In his book, ‘Glasgow Motorways a history’, published in 2006, John M Cullen** provides a definitive account of his involvement with SWK in the history, planning, procurement and outcome of this great undertaking and, in April 2012, very kindly gave permission for some of his recollections to be quoted or used as source material, among other sources, in this History of Scott Wilson in Scotland.

**John Cullen was born in Glasgow in 1928.** He was educated at Allan Glens School, Glasgow and joined Babbie Shaw & Morton, Consulting Engineers, as an apprentice in 1944, working mainly on water and drainage projects. While he was with Babbie, he studied civil engineering, by day release, at the Royal Technical College, Glasgow, taking the examinations set by the Institution of Civil Engineers. John became professionally qualified (MICE) in 1955 and emigrated the same year, with his wife, to Toronto, Canada, moving to Pittsburgh, USA, in 1957 where he worked mainly on highway drainage. Later that year, he moved to De Leuw Cather in San Francisco, where, by a great stroke of luck, he found himself working mainly on the geometric design of freeways, a rather specialised occupation in those days, even in USA. In 1959, John and family returned to Scotland where he spent a year with Cumbernauld Development Corporation utilising his American experience on the grade separated and near motorway roads for the New Town. On reading a newspaper article about SWK’s appointment as consultants for the proposed **Glasgow Inner Ring Road**, John wrote seeking involvement. Initially he was offered a job on the **M6 in the Lake District**, which he declined, but a few months later he accepted a position on the GIRR team in Glasgow.

John recalled his introduction to SWK “I started work in the Glasgow Office of Scott Wilson Kirkpatrick in September 1960. The office was in High Street, in a room and kitchen tenement flat. Roy Hodgen, who was in charge of the project and until my arrival was the sole occupant, had prepared for my arrival by providing a drawing board on a metal stand and a stool, in the kitchen. My side table was the top of a coal bunker. The toilet was in the back court and in wet conditions one had to leap over a puddle to gain access. Roy was ensconced in the front room. I remember he had a table and chair but not much else. Much was achieved in the six months we spent there before moving on to more salubrious premises” at 4 Park Gardens.

In September 1960, Roy Hodgen was engaged in organising an origin destination survey for the design of the **Inner Ring Road** by roadside survey, believed to be the first such survey in the UK, possibly in Europe. John Cullen’s first job was draw up an initial outline design of the **Inner Ring Road** which was loaded, tested and revised in an iterative manner until a satisfactory design was achieved. It was soon realised that further traffic studies were required to properly understand and take account of the various interchanges that would be needed to connect the Ring Road with planned or proposed radial routes and motorways carrying predicted traffic to and from destinations far beyond the City boundaries. Consequently, SWK’s initial remit was extended in 1961 to include more detailed traffic studies. The revised terms of reference contained in a letter from the Town Clerk of Glasgow dated 17 November, 1961, were as follows: - “I have to inform you that the Corporation, having heard a report by the Director of Planning, regarding the need for a comprehensive study of the principal traffic routes in the City Development Plan, agreed that you be asked to examine the City’s principal traffic routes and to report on the type and location of such routes.”

In preparing the Highway Plan, SWK, who carried out most of the detailed studies, were associated with William Holford & Associates, Architects and Planning Consultants, who provided architectural and landscaping advice, including a series of perspective views of the proposals; Mr **A. T. McIndoe**, Chartered Surveyor and Town Planning Consultant, who advised on acquisition costs; **Prof D. J. Robertson**, of Glasgow University, who advised on the use of economic data and TAMS, who provided the American experience in highway design and traffic studies and obtained the traffic prediction and assignment programmes fundamental to the studies.

It is interesting to note that **Angus Munro**, who had joined the team in Glasgow with responsibility for traffic surveys, analysis and modelling, had to travel to Washington D.C. around the end of 1961 to use a commercial computer capable of handling the programme and the large amount of data! Fortunately, a suitable IBM computer became available in Glasgow early in 1962.

**Later, in 1964, work began on the Greater Glasgow Transportation Survey (GGTS)** covering Glasgow and the surrounding counties, an area of around 450 square miles including around a third of the population of Scotland. The objective of this study, carried out in association with TAMS, was to obtain an accurate picture of all existing modes of public and private traffic and then to recommend a coordinated transportation system for predicted development up to 1990. Thousands of interviews took place using a large temporary team to support the permanent staff. As Glasgow was, at the time, the only city in the UK, apart from London to have commissioned such a study, Scott and Wilson, Kirkpatrick & Partners was at the forefront of this type of work in the UK. The findings of the study, completed in 1967, resulted in proposals for urban motorways and an improved public transport system, all at a cost of around £400 million. It had been expected that **GGTS** would replace the **Highway Plan** study but it was based on national predictions of population, economic and vehicle growth which were revised sharply downward shortly after the study was completed. Furthermore the predicted population of the study area was itself found to be too high in the prevailing local circumstances. As a result, the traffic predictions used for the **Highway Plan** and the overall proposals were left unchanged. The core of the **GGTS** team subsequently came under the control of Glasgow's Planning Department where they participated in the production future transport plans, particularly for railways.

**The Interim Report on the Glasgow Inner Ring Road was presented in June 1962** and published in December 1962. The report on future highways development was submitted by SWK in 1963 and published as '**A Highway Plan for Glasgow**', but not until 1965. The reason for the delay was that all available resources were concentrated on the preparation of the first motorway construction contract, **Townhead Interchange Stage1!**

Most of the work for the **Highway Plan** took place at 4 Park Gardens at astonishing speed by a group of no more than 2 to 6 'hands-on' engineers. **Henry Grace** was the Partner in charge but he was happy to brief his chosen team and tell them 'to get on with it!'

**Billy Holmes**, having completed his studies at Allen Glen's School, Glasgow, was recruited to 4 Park Gardens on 16 January 1961 and remembers the first big traffic survey of Glasgow in June 1961. 252 High Street must still have been in use, because Billy remembers that traffic coding was done by students who had the use of an outside loo (presumably that which John Cullen also remembered) which was shared with the staff of a ladies hairdressing shop round the corner! Fortunately, the toilets and other facilities were of a much higher standard at 4 Park Gardens where **Roy Hodgen**, **John Cullen** and **Billy** were eventually joined by **Angus Munro**, **John Stamper**, **Maurice Watson**, a tracer and an engineer from an overseas office.

In **John Cullen's** view, "the principal reason for the speed of achievement, was **Roy Hodgen** who worked at an intensity....and...clarity of thought that was remarkable", leaving John, in all respects, Roy's understudy, "to get on with the geometric design of the roads etc. Time was saved by generally getting things right first time round. Indeed most of the motorways built to date are very little different

from the original outline design. The managing method was simple..... No mission statements or visions and no managers. No committee meetings, except the working party meetings. The whole process was civil engineering orientated, with the traffic studies directed towards the design of roads and not an ends in themselves. Roads were designed to be practical and achievable. Everyone worked with great enthusiasm”.

Everyone involved on the production of, 'A Highway Plan for Glasgow' was engaged in a momentous work, a great achievement. Nothing like it had been attempted in the UK before; there was no precedent; there were no UK standards and procedures upon which to rely; new ground was broken!

Henry Grace (based in London) was the Partner in charge but full credit must go to Roy Hodgen and John Cullen who, almost by chance, came together in the right place at the right time with, between them, the intelligence, energy and (American) experience to drive the project through to an early and successful conclusion.

**Cometh the hour, cometh the men!**

**Theirs was the Vision!**

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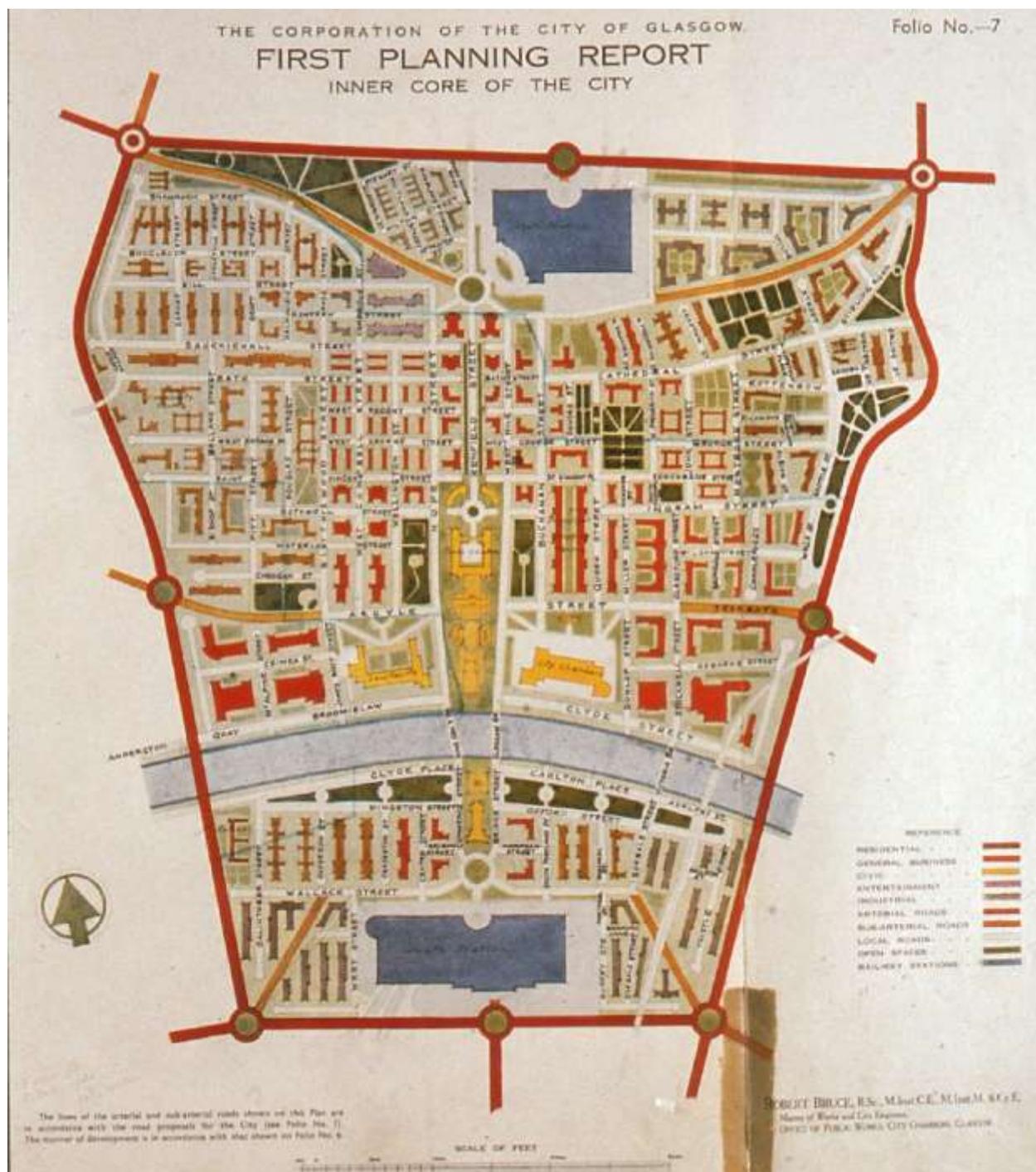
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#### **Photographs:-**

McCafferty JP has a number of photographs of staff from the period obtained from JM Cullen and Pat Hodgen.



### The Bruce Report of 1945 [The First Planning Report]

Robert Bruce BSc MInstCE MInstM & CyE  
Master of Works and City Engineer, Glasgow

Note that the entire city centre was envisaged as being demolished and built anew with a Ring Road, a central Civic Centre, new Law Courts and City Chambers located on the north bank of the River Clyde and new North and South Railway Stations.

The proposed Ring Road is shown as a surface road with large roundabouts at the major junctions with provision for shops, offices, bus stations and interchanges to underlying railways.



**Henry Grace 1912 – 1984**

Henry Grace secured the commission to advise on traffic studies for a new Ring Road for The Corporation for the City of Glasgow in 1960. He was 'The Father of the Glasgow Office' although based in London then Basingstoke. Until he retired as Senior Partner in 1976, Henry Grace remained a champion of the Glasgow Office.



**Roy Hodgen 1928 – 2004**

Roy graduated from Queen's University, Belfast in 1950 taking an MSc in Soil Mechanics in 1951.

He was appointed to the Glasgow Office in July 1960, coming directly from Yale University where he had just graduated from a special course in Traffic Engineering and Planning.



**Roy Hodgen c1966**



**John M Cullen c1949** in the tie and blazer of The Royal Technical College, Glasgow

John studied civil engineering on day release while working as an apprentice with Babbie, Shaw & Morton; this was a common route to becoming a chartered engineer at the time.

Having gained important experience in highway design in Canada and USA in the 1950s, John joined the High Street office of SWK Glasgow, in September 1960 as Roy Hodgen's 'right hand man'.



**John M Cullen c1964**

Leading the Highway Planning Team at 6 Park Circus, Glasgow



**Angus Munro c1964**

Angus was head of the Traffic Team at 4 Park Gardens and 6 Park Circus, Glasgow.



**William Hamilton Holmes c1964**

Billy joined SWK as an apprentice at 4 Park Gardens, Glasgow in January 1961, straight from Allen Glen's School, Glasgow



**John Stamper c1964**

John transferred from SWK London to Highway Planning at 4 Park Gardens, Glasgow 1961.



**Maurice Watson c1976**

Maurice transferred from SWK London to Highway Planning at 4 Park Gardens, Glasgow c1961.