

Joint Task Force

on the

MANUFACTURE OF LICENSE PLATES

FINAL REPORT

December 1973

JOINT TASK FORCE ON
MANUFACTURE OF LICENSE PLATES

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December 26, 1973

Mr. Kenneth F. Schoen, Commissioner
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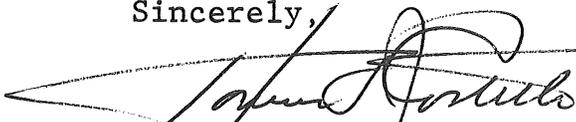
Dear Messrs. Schoen and Hoaglund:

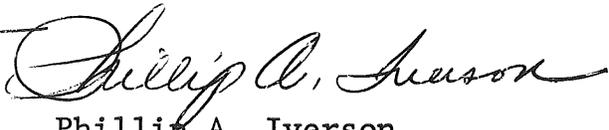
The following report represents the joint efforts of the Task Force assigned to study the license plate manufacturing in Minnesota. This report, in general, summarizes the findings, and if further information is desired, backup material is available.

The recommendations of this Task Force include the construction of a new plant outside the Reformatory walls, with the installation of new high-speed production equipment. If this is an acceptable course of action, it is extremely important to begin planning for legislative action at the earliest possible date. In order to produce the license plates needed for the 1976 and 1977 issues, a new plant must be operational in 1975. This means that action must be taken by the Legislature early in 1974, as waiting until 1975 would prevent the plant from being operational until 1976.

If a meeting is desired to discuss this report, arrangements will be made for as early a date as possible.

Sincerely,


Howard J. Costello
Deputy Commissioner
Administrative Services


Phillip A. Iverson
Deputy Commissioner
Department of Public Safety

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MANUFACTURE OF LICENSE PLATES

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MANUFACTURE OF LICENSE PLATES

HISTORY OF LICENSE PLATE MANUFACTURING:

The available records for license plate production go back to the year 1929. In that year, as in all years up to 1947, plates were produced by private firms. New plates were issued on an annual basis until 1956 when a change was made to three year automobile plates and two year truck plates.

Vehicle registrations have continued to rise each year except for a brief decline in the early 1930's and another decline during the war years in the 1940's. Since the second World War, registrations have increased each year for every type of vehicle except motorcycles. Motorcycle registrations declined during the 1950's but since that time they have been increasing rapidly. Total vehicle registrations in selected years from 1930 to 1974 are:

<u>Year</u>	<u>Registrations</u>	<u>Receipts</u>
1930	744,271	11,074,653.73
1935	753,076	7,058,077.03
1940	963,956	9,903,333.77
1945	841,012	7,439,184.00
1950	1,240,520	21,651,504.41
1955	1,435,026	30,383,934.70
1960	1,758,619	40,999,550.38
1965	1,971,387	49,015,042.24
1970	2,606,784	63,824,123.04
1974	4,284,790	- - - - -

Present estimates indicate a continuing growth in the number of registrations at least through the next decade.

License plate manufacturing at the State Reformatory for Men in St. Cloud began in 1947 in preparation for the 1948 plate issue. For that issue, slightly over one million pairs of plates were produced. The contract for plate production was awarded to the Reformatory on the basis of competitive bids and marked the first time that Minnesota plates were produced in a State Institution. Competitive bidding was used for awarding plate production contracts until 1957 when a law change gave contracts to the Reformatory.

Production equipment installed in 1946 has been in continuous use since that time and except for the addition of some safety devices and automates feed mechanisms, the machinery remains the same.

Financing of the Reformatory plant, after the initial equipment and space setup, was on a "revolving fund" basis with receipts for license plates deposited in the fund for operating capital. This system was in effect until 1971 when financial control was transferred to the Department of Public Safety. At the time of this change, \$363,186.63 which remained in the revolving fund was transferred to the General fund. Costs are now paid out of appropriations from the Highway Users Fund by the Department of Public Safety for such items as material, labor, and transportation.

II. PRESENT PROBLEMS IN THE REFORMATORY PLANT:

Problems have been developing for some time in the Reformatory license plant operation. The result has been that insufficient license plates have been produced to meet the demand for the 1974 issue. These problems center around the following three major deficiencies: 1. Obsolete and worn out equipment, 2. Space limitations preventing an efficient plant layout, and 3. Reduction in the number of inmates available for plant labor.

The equipment used in license plate production, which has been in continuous use since 1947, was not intended to produce the volume of plates demanded by the increased registration of vehicles. Present plant production capacity is about 3,000 single plates per hour. To meet the present demand for plates, 10,000 single plates per hour must be produced.

Space limitations are another factor in present plant efficiency. The plant has been located in the same space since its inception in 1947. With the increase in number of plates which must be produced, production line setup and material storage have become major problems. There is insufficient room to set up new, more automated equipment without developing a multiple floor operation, which would create a poor production line now and reduce efficiency.

With a decreased inmate population at the Reformatory for Men, the available labor supply has been reduced. Also, a large percentage of the population is unwilling to work in production of license plates for the low wages being paid. All of these factors have contributed to the inability to meet license plate demand.

III. FUTURE OUTLOOK FOR LICENSE PLATE DEMAND:

License plates will be issued in 1976 for all vehicles except automobiles (5 year issue). The automobile issue will be in 1977. (5 year issue) For these issues, the estimated need is:

Passenger cars (1977)	4,500,000 pairs
Trucks (1976)	747,500 pairs
Buses (1976)	31,500 pairs
Trailers (1976)	879,925 singles
Motorcycles (1976)	193,750 singles

This totals: 11,631,675 single plates for the purpose of registering 6,352,675 motor vehicles and trailers. This is approximately 51% more than the requirements for the 1974 issue which are expected to total 7,704,640 single plates to register 4,284,790 motor vehicles and trailers.

The estimates for the 1976 and 1977 issues is based on the best available information and the history of vehicle registrations. The impending gasoline shortage could have an impact on these estimates, although it may create offsetting changes. For example: a severe shortage of gasoline would likely result in some drivers discontinuing private car ownership and the use of public transportation. However, this change in plate demand may be offset by the addition of many small vehicles for commuting and local use, and additional plates for public transportation. In summary, the

Future Outlook...continued...

license plate requirements are expected to rise by about 51% for the 1976-77 issues. The fuel shortage may have an effect, but its impact is not expected to drastically alter the license plate requirements for the next issue.

IV. ADVANTAGES OF LICENSE PLATE PRODUCTION AT THE REFORMATORY FOR MEN:

The primary advantage of producing license plates at the Reformatory for Men is cost. The Reformatory produced steel plates during fiscal year 1973 for approximately \$.99 per pair*, while the plates purchased from outside vendors cost about \$1.14 per pair for aluminum and \$1.0459 for steel. This differential, when applied to several million pairs, constitutes a significant saving to the State of Minnesota.

In addition to cost considerations, production at the Reformatory has several other benefits, including 1), a location that is fairly central for economical distribution, 2), the opportunity for inmates to work in an industrial plant, 3), the opportunity to pay inmates a living wage and help defray some of the costs of incarceration and 4), keeping Minnesota tax dollars within the State.

The central location of St. Cloud is a distinct advantage both in the delivery of raw materials and finished license plates. Delivery (at a reasonable cost) can be made by truck to all Deputy registrars without transfer and reloading. With St. Cloud on a main rail line and also a main truck route, raw material can be shipped in quickly at low cost. This convenient location becomes a major factor with fuel shortages.

The opportunity for an inmate to work in a modern industrial plant is quite limited within the Correctional system. The license plate factory, if it were fully modernized, would provide such an opportunity while reducing costs. Although there is no direct vocational training in such a plant for outside employment, the similarity in production techniques used in many outside industries does provide valuable training.

Another important benefit of license plate manufacture at a Correctional Institution is the opportunity to pay adequate inmate wages. With a slight increase in cost a minimum wage can be paid while keeping the price under the price of other vendors. This can reduce welfare payments to an inmate's family, defray part of the costs associated with incarceration, and provide the inmate with a better financial condition upon release. Such a wage could also provide the inmate the incentive for better work habits and higher morale.

The advantage of keeping license plate production within Minnesota also has the advantage of producing an economic benefit for the State. Wages paid, products purchased, and transportation necessary to the operation all tend to help the economic well-being of the State. The fact that this benefit is derived with lower costs for plates adds to its importance.

*The cost at the Reformatory was higher than usual in 1973 due to a fire which stopped production for 8 wks. & resulted in additional expense.

V. DISADVANTAGES OF LICENSE PLATE PRODUCTION AT THE REFORMATORY FOR MEN:

The major disadvantages of license plate production at the Reformatory for Men lies in the uncertainty of labor supply due to the inmate population. Both the quantity and quality of labor have decreased and if the decline continues, operation of the institution could become questionable.

During the fifteen years from 1958 to 1973, Reformatory average populations have declined from 989 inmates to 499 inmates. This represents nearly a 50% reduction in the inmate body. During this same period, vehicle license plate requirements have more than doubled.

With the scarce labor supply available from the inmate body creating problems in production, institution disturbances and lockups have further reduced the available working days to meet production requirements. Disturbances have always been, and are likely to be, a periodic occurrence in a maximum security institution. With a factory inside the institution walls, these disturbances can result in excessive "down" time and plant destruction which can severely damage the ability to meet requirement deadlines.

At the present time, a Select Committee of legislators and private citizens is studying the use of Correctional institutions in Minnesota. This Committee is charged with determining the future of institutions in light of new trends in Corrections. Although the legislature will make the move to close any major institution, the recommendation of this committee could have a definite impact on the future of the Reformatory for Men. Closing of this institution would end the available supply of inmate labor and force a change in license plate production.

VI. RECOMMENDATIONS:

1. Manufacturing Plant: This committee recommends that a new plant be built outside the walls of the Reformatory for Men at St. Cloud. The recommended plant site is in the area South of Highway 301.
2. Financial Control: The license plate production should be financed through the establishment of a separate "revolving fund". There should be no dependence on Reformatory funds or services.
3. Administration of Plant: The license plant should be managed by a plant manager reporting to the Superintendent of the Reformatory. This manager should have no other responsibilities other than the license plant, and should be independent of other Reformatory industries.
4. Payment of Inmate Wages: Inmates should be paid a minimum wage for work in the factory. This wage should create an incentive, improve morale, and help assure efficient production.
5. Emergency Labor Supply: Due to the uncertainty of inmate labor

Recommendations...continued...

supplies, the license plant should have the authority to hire temporary civilian help when necessary. The plant should be authorized to utilize any combination of inmate and civilian labor necessary to meet production demands, however, inmates should have the first priority for jobs.

6. Repayment of Capital Appropriations: In order that the cost of license plates reflects the actual cost of production, approximately \$.05 per plate should be added with the proceeds repaid to the General Fund, if the plant and equipment appropriations are made from this fund. This repayment should continue until all appropriations for construction and equipment are repaid.
7. Action in case of Reformatory Closing: In the event the Reformatory is closed at some future date, consideration could be given to moving the license plant to another correctional facility, selling the plant to a private corporation, or continue operation under State auspices using civilian labor.

If instituted, the above recommendations would reduce the cost of license plates, place the plant on a sound management and financial basis, improve the financial problems of many inmates, and allow for future contingencies which may occur with a manufacturing plant operated at a Correctional Institution.

VII. COST OF IMPLEMENTING RECOMMENDATIONS:

1. Building: To produce the required number of license plates, it is estimated that an adequate plant would need approximately 30,000 square feet of floor space. At an estimated cost of \$17.00 per square foot, the construction cost comes to \$510,000.00
2. Production Machinery: Though some of the present machinery would be usable in a new plant, the majority of it would need replacement with more modern, high-speed equipment. Estimated cost: \$600,000.00

The total cost of a modern efficient plant thus totals:

\$1,110,000.00

This plant would have the capabilities of producing all license plate requirements for the State of Minnesota, with the possibility of producing some plates on contract for other states.

VIII. PRODUCTION COSTS AT STATE REFORMATORY V/S LOW BID FROM OUTSIDE VENDOR:

Inadequate production capabilities at the Reformatory forced the purchase of 1,300,000 pairs of automobile plates from outside vendors in order to meet requirements for the 1974 issue. The low bid for 500,000 pairs of steel plates was Structo, Inc. of Freeport, IL, with the cost totaling \$1.046 per pair. Aluminum plates were produced with a cost of \$1.14 per pair.

Reformatory V/S Outside Vendor...
continued...

Although the plates produced at the Reformatory resulted in only a five cents per pair saving, compared to purchased steel plates, it is estimated that approximately twenty three cents per pair savings can be realized with a new plant. If a new, well equipped plant had been in operation during the last two years, the cost per pair of plates would have been approximately eighty one cents (\$.81), including payment of a minimum wage to inmates and a two cents per plate profit.

When all costs are considered, the State Reformatory should be able to produce license plates at a saving of between \$.20 and \$.25 per pair compared to outside vendors. With the volume of plates expected to be needed for the next issue estimated at 11,631,675 single plates (5,815,837 pairs), the savings would be between \$1,163,167 and \$1,337,642. This is a sufficient amount to pay for the new plant and equipment from savings generated in producing the 1976 and 1977 plates issues.

It is likely that costs will rise in the future and the Reformatory will not be able to produce plates for eighty one cents per pair. However, with rising costs it is unlikely that plates will be available in the future at \$1.04 per pair from outside vendors. The net effect of rising costs will, in all probability, have no effect on the differential in cost between plate production at the Reformatory and purchase from outside vendors.

IX. OTHER ALTERNATIVES CONSIDERED:

Five other alternatives were considered prior to arriving at the recommendations proposed under Section VI. These were: 1) Contract for the entire plate needs with outside vendors, 2) Retain miscellaneous plate production at SRM and contract automobile plate production from an outside vendor, 3) Move the entire license plant to the State Prison, 4) Split plate production between the Prison and the Reformatory, 5) Establish a single plate system.

1. Contract with outside vendors: Contracting with outside vendors for all license plates is probably the easiest solution, but also the most costly. This alternative was not felt to be feasible as it would cost approximately 1.3 million dollars more for the 1976 and 1977 plate issue. Another consideration was the loss of economic benefit to Minnesota, as license plate manufacturers able to bid successfully will likely be out of state.
2. Retain miscellaneous plate production at the Reformatory and Contract with Outside Vendors for Automobile Plates: This alternative also was more costly, although it would save some money over contracting for all plates. The cost of plates produced at the Reformatory would be higher under this system as it would be impractical to install new machinery for such limited production. Total cost of the 1976/1977 issue under this alternative estimated to be \$1,000,000 over cost with a new plant.

Other Alternatives...continued...

3. Move the Entire License Plant to the State Prison: Transferring the license plant to the Prison would incur more costs than retaining it at the Reformatory. Additional warehouse space would be needed, a new plant and equipment would be needed, and moving useable items in the present plant would be required. In addition, the prison has a disadvantage of not being centrally located within the state. No major benefits could be seen in such a plant location shift and with higher costs associated, this alternative was discarded. Production costs would be the same, but construction and equipment costs estimated at \$1.3 million.
4. Split production between the Prison and Reformatory: Splitting production between the prison and reformatory would have some benefit in inmate labor availability, but other costs were too high. In such a plan, both institutions would require new or remodeled buildings, duplicate production equipment, and duplicate administration. Plant and equipment costs would be higher, production costs higher, and proper management more difficult. Construction and equipment costs would still be about 1.2 million and plate costs somewhat higher.
5. Establish a Single Plate System: Considerable production time, material use, and shipping cost savings could be realized with the use of only one rear plate per vehicle. This possibility has been discussed, but is not a viable alternative unless the law is changed which presently requires both front and rear plates. Further information on this alternative is being gathered in case there is support for the one plate system. It is unlikely that the Reformatory could produce the required number of single plates with the old plant. However, even with the purchase of some plates from outside vendors, this alternative would result in the lowest overall cost.

X. SUMMARY:

License plate records available go back to 1920 when a total of 727,082 vehicles of all types were registered. Except for brief declines, vehicle registrations and plate requirements have grown steadily. Plate production at the Reformatory began in 1947 for the 1948 issue.

The machinery used in plate production has been in continuous use since 1947 and is obsolete. Space limitations prevent new equipment and production line improvement in the present structure. Result has been the inability to meet the demand for the 1974 license plate issue.

The number of plates needed is expected to increase to nearly 12,000,000 single plates for the 1976-77 issue. The impact of the energy shortage is not likely to have a major impact during the foreseeable future, and the shift to smaller vehicles may actually increase total registrations.

The major advantages of making license plates at SRM are: 1) the cost is lower, 2) location in St. Cloud is centrally located in the

X. Summary...continued...

State, 3) An industrial plant can give inmates an opportunity to earn money, 4) license plate production within the State has a positive impact on the economy.

Most of the disadvantages of producing plates at SRM are due to the uncertainty of having available inmate labor in the future, and of what quality that labor may be. There is a question of whether or not the Reformatory will continue as an operating institution.

RECOMMENDATIONS:

- a. Build and equip new plant at the Reformatory for Men at a location South of Highway 301. At a cost of approximately \$1,110,000.00
- b. Establish a license plant revolving fund for on-going operation.
- c. Appoint a "License Plate Plant Manager" responsible to the Superintendent of the Reformatory.
- d. Pay inmates a minimum wage as part of the cost of production.
- e. Allow the employment of civilian labor on a temporary basis if inmate labor is not available.
- f. In new plant and equipment appropriations are made from the General fund, add approximately five cents (\$.05) to the price of each license plate produced with the proceeds used as repayment. Total appropriations should be repaid in approximately 10 years with this method.
- g. If Reformatory is closed at some future date, consider moving the plant to another correctional facility, sell it to a private corporation, or operate under State auspices using civilian labor.

Adoption of these recommendations will reduce the costs of license plates and save an estimated 1.3 million dollars over contract purchasing for the 1976 and 1977 plate issue. This will be more than sufficient to offset the cost of building and equipping a new plant.

In order to realize the cost saving for the next issue, action must be taken quickly in order that construction can be completed in 1974. In order to meet delivery schedules, production of plates must be started early in 1975.