VISION WAIVER ASSESSMENT

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BACKGROUND

- According to Section 204 of the Highway Traffic Act, all Ontario optometrists are obligated to report to the Ministry of Transportation any individual whose vision is insufficient for driving.

- Regulation 340/94 stipulates that in order to maintain a class G license and safely operate a motor vehicle, a binocular best-corrected visual acuity of 20/50, in addition to an uninterrupted binocular visual field extending 120 degrees across the horizontal and 15 degrees above and below the horizontal midline without the use of field enhancing lenses or prisms, is required.

MOT VISUAL FIELD REQUIREMENTS DEMONSTRATED ON A GOLDMAN VISUAL FIELD
Impairment in visual field may result in reduced perception of obstacles or hazardous situations which is considered to be a key factor for safe driving.

BUT......

PSYCHOSOCIAL IMPACT

Loss of a driver’s license is often quite devastating to an individual. The psychosocial impact often includes a decreased level of independence, and a greater incidence of depression.

Several studies have demonstrated that impairment in visual field does not necessarily indicate that an individual will be an unsafe driver, as many have developed various compensatory strategies that are not evaluated by standard perimetry testing.

Individualized assessments are recommended.

In 2005, the Ministry of Transportation of Ontario implemented a program to individually evaluate drivers with visual field impairments.

VISION WAIVER PROCESS

- Driver identified as having inadequate visual field function

- MTO provides driver with vision waiver package
  - Driving questionnaire – insights, habits, last time driving
  - Medical report – completed by GP
  - Vision certificate – completed by ophthalmologist or optometrist

- MTO ensures inclusion/exclusion criteria met
    → approval for Functional Vision Waiver Assessment
VISION CERTIFICATION STARTS WITH

- Patient needs to request the form once license has been revoked
  - Only for VF defect…not VA
  - Cannot apply field enhancement prisms for driving
VISION CERTIFICATION – OCULO-VISUAL ASSESSMENT

- Complete oculo-visual assessment with repeated fields
- In addition to visual acuities and field extent, need to report any visual conditions
  - Retinal disease
  - Optic nerve disease
  - Colour vision defect
  - Strabismus
  - Eye movement disorders
  - History of refractive laser surgery
  - Glaucoma
  - Diabetic Retinopathy
  - Corneal scarring
  - Cataracts
VISION CERTIFICATION QUESTIONS

- Two questions:
  1. Are the fields stable? Prognosis.
  2. Do you think your patient has adapted to the field loss?
     - How do I determine this?

- Sign the form if you feel that the field is stable and that the patient has adapted to the field loss.
# MOT Form

## Result of Examination / Résultats de l'examen

<table>
<thead>
<tr>
<th>1 Visual Acuity / Acuité visuelle</th>
<th>Right Eye</th>
<th>Left Eye</th>
<th>Both Eyes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Without Corrective Lenses</td>
<td>20/1</td>
<td>20/1</td>
<td>20/1</td>
</tr>
<tr>
<td>With Corrective Lenses</td>
<td>20/1</td>
<td>20/1</td>
<td>20/1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2 Horizontal Peripheral Fields / Champ des vœux périphériques horizontaux</th>
<th>Right Eye Oeil droit</th>
<th>Left Eye Oeil gauche</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temporal Field Champ temporal</td>
<td>Nasal Field Champ nasal</td>
<td></td>
</tr>
<tr>
<td>Temporal Field Champ temporal</td>
<td>Nasal Field Champ nasal</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total Binocular Horizontal Visual Field Champ binoculaire horizontal total</th>
<th>Yes/Non</th>
<th>No/Non</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refractive Surgery / Chirurgie réfractive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diabetic Eye Disease / Maladie diabétique de l’œil</td>
<td></td>
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<tr>
<td>Glaucoma / Glaucome</td>
<td></td>
<td></td>
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<tr>
<td>Strabismus / Strabisme</td>
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<tr>
<td>Abnormal Colour Vision</td>
<td></td>
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<tr>
<td>Troubles de perception des couleurs</td>
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</tr>
</tbody>
</table>

Please provide a brief narrative summary of the overall findings, including the prognosis (i.e., is the condition likely to change).  

Veuillez donner un bref résumé narratif de l'ensemble de vos conclusions, y compris le pronostic (à savoir si l'état du patient est susceptible d'évoluer).
VISION CERTIFICATION

What if I do not believe that the patient has adjusted to their field loss?
IF YOU FEEL UNABLE TO SIGN...

Note to: Vision Specialist
If you feel unable to sign this Certification, please complete the space below.

Name

Address
EXTENT OF VISUAL FIELD LOSS IS NOT A PREDICTOR OF VISION WAIVER APPLICATION OUTCOME!!
MTO INCLUSION/EXCLUSION CRITERION

• Does not have more than 6 demerit points on his/her driving record
• Has not had his/her driver's license suspended within the last 5 years as a result of a Criminal Code conviction for an offence committed by means of a motor vehicle
• Has not had his/her driver's license suspended within the last 5 years as a result of certain Highway Traffic Act convictions
• Has not, within the last 5 years and within the time of vision loss, been involved in a collision with an associated conviction under the Highway Traffic Act for certain offences
• Meets all other qualifications for the applicable class of license
• Does not have a medical or visual condition or disability that, alone or combined with a reduced visual field, may significantly impair driving ability.
• Satisfactory medical report, satisfactory vision assessment from an optometrist or ophthalmologist
OUR PROGRAM...

- One of the first driver rehab programs in Canada
- Program was acquired by Saint Elizabeth in 2005
- One of the few driver rehabilitation programs in the province that is not-for-profit
- Industry leaders
- Extremely experienced working with clients with complex medical issues
OUR PROGRAM

- Amongst the first batch of driver rehabilitation centres that provided vision waiver assessments (since 2005)

- Currently provides driver rehabilitation services out of 7 locations in Ontario: Saint Catharines, Hamilton, Oakville, Brampton (Toronto), North York (Toronto), Whitby, and Kingston

- Vision waiver assessments only out of Hamilton and North York.

- Currently about 20 different driver rehabilitation centres in Ontario are doing vision waiver assessments
FUNCTIONAL VISION WAIVER ASSESSMENT

- Completed at Driver Rehab Facility approved to do Vision Waiver Assessments
- A one-day temporary license is obtained as the client’s driver’s license would be medically suspended
- Cost ~$600-800+
- Generally out-of-pocket
- Extended health benefits for OT may cover cost of assessment
- Takes about 3-4 hours
- Includes in-clinic evaluation and on-road evaluation
- For class G (G1/G2) only! Currently does not apply to any other class of license such as motorcycle, bus or commercial drivers.
IN-CLINIC EVALUATION

- Review consent form
- Clinical interview: review medical/vision history, driving history
- Meta-Cognitive Assessment
- Physical assessment
- Cognitive visual-perceptual tests
The main purpose of the Meta-Cognitive assessment is to assess the client’s insight and awareness.

- Do they understand their visual field deficit?
- Are they acknowledging functional deficits?
- Do they have ideas about how they should compensate for their deficit?
- Are they taking responsibility?
IN-CLINIC EVAL: PHYSICAL

- Range of motion
- Strength
- Coordination
- Sensation

A small percentage of clients will also need to drive with an adaptive driving controls (spinner knob, cross-over signal extensions, left foot accelerator)
IN-CLINIC EVAL: COGNITIVE VISUAL-PERCEPTUAL

- Three tests are done
- The Motor Free Visual Perceptual Test (MVPT)
- Dynamic Scan Course
- Comprehensive Trail Making Test (CTMT) (age <55) or Useful Field of View (UFOV) (age >55)
MOTOR FREE VISUAL PERCEPTUAL TEST (MVPT)

- MVPT: Widely used standardized test of visual perception
- “Motor free” means no physical skills required
- Takes about 25 minutes
- Assesses Visual Discrimination, Visual Figure-Ground, Visual Memory, Visual Closure, and Visual Spatial skills
DYNAMIC SCAN COURSE

- Sub-test of the biVABA
- Client walks down the hallway (cannot stop)
- Has to read off letters and numbers that are posted on cards positioned at both sides from head level down to the floor)
COMPREHENSIVE TRAIL MAKING TEST (CTMT)

- CTMT: is a standardized set of five visual search and sequencing tasks.
- Attention, concentration, resistance to distraction, and cognitive flexibility (or set-shifting) heavily influence performance on these tasks.
USEFUL FIELD OF VIEW (UFOV)

- Useful Field of View: The area from which one can extract visual information in a brief glance without head or eye movement. The limits of this area are reduced by poor vision, difficulty dividing attention and/or ignoring distraction, and slower processing ability.

- Reduced UFOV = Increase crash risk!

- 3 parts:
  - Test 1: Central vision/processing
  - Test 2: Divided attention
  - Test 3: Selective attention
ON-ROAD EVALUATION...

- Client must perform adequately in the clinical evaluation to proceed with the on-road evaluation.

- For example, if the client has poor insight and does poorly on most of the cognitive visual-perceptual tests then the assessment is terminated and a recommendation for no-driving is made.

- Provided that the client does adequately in the clinic they are provided with education on how they can compensate for their visual field defect and proceed with on-road evaluation.
ON-ROAD EVALUATION CONTINUED…

- Conducted in facility vehicle (dual control)

- Driving instructor: directs the client and scores driving skills hand habits

- Occupational therapist: sits in the back and assess the client’s observational skills and errors

- On-road test was developed to identify target maneuvers that would challenge persons with horizontal visual field deficits
ON-ROAD EVALUATION

- Conducted over a period of ~80 minutes
- Warm-up
- Two 25 minute road tests and feedback

- A feedback session in between the two road tests is essential in determining the driver’s insight into his/her visual condition and his/her ability to make changes based on feedback.

- Affords the opportunity for the driver to demonstrate the ability to compensate and thoroughly examine on-road performance
HOW TO COMPENSATE?

- Improve visual scanning: looking far, scanning ahead, moving the eyes
- Improve use of mirrors
- Implement blind-spot checks prior to lane changes
- Implement wide scans of intersections, especially with turns
- Vehicle positioning
- In cases where physical impairments limit neck rotation, expanded mirrors, auxiliary mirrors, or swivel seat made be used
ON-ROAD: TARGET MANEUVERS

- Observing vehicles in adjacent lanes during lane change and highway merge
- Observing hazards (pedestrians, cyclist, drivers emerging from parked vehicles, vehicles entering traffic, parking lot traffic movements)
- Observing vehicles approaching at intersections
- Observing road signs/traffic lights
- Maintaining appropriate lane position (curves, highway, shopping area)
- Observing awkward angles (around obstacles, non-90 degree intersections)
- Observing in parking lot (including one backing maneuver)
ON-ROAD: OT SCORING

- OT will score:
  - Driving errors made arising from identified skill deficits (number of target errors)
  - Metacognition with respect to ability to predict, monitor and alter task performance based on feedback provided.
  - Quality/quantity of compensatory strategy utilized (overall compensatory skills)
# Functional Driving Assessment - Class G Vision Waiver

The Ministry requires you to have this form completed by a registered Occupational Therapist from a Ministry approved assessment centre. Please fax completed assessments to 416-238-3400 or 1-800-304-7889, or mail completed assessments to: Ministry of Transportation, Driver Improvement Office, Medical Review Section, 77 Wellesley Street W, P.O. Box 569, Toronto ON M7A 1N3. The fee for the assessment and completing this report is not the responsibility of the Ministry.

### Section 1 - Patient Information

<table>
<thead>
<tr>
<th>Driver's Licence No.</th>
<th>Date of Birth</th>
<th>MTO File #</th>
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<table>
<thead>
<tr>
<th>Last Name</th>
<th>First Name</th>
<th>Middle Initial</th>
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<tr>
<th>Street No. and Name or Lot, Conc. and Township</th>
<th>Apt. No.</th>
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<th>City, Town or Village</th>
<th>Postal Code</th>
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### Section 2 - Medical History

- Relevant Diagnoses:
  1. 
  2. 
  3. 

- Vision Deficit to be compensated for: ____________________________ Date of Loss: 

- List Medical and Vision Reports Reviewed:

- First Assessment
- Repeat Assessment. If checked ☑, where was the original assessment conducted? ____________________________

### Section 3 - Driving History

- Date driver last drove: 

- The patient has previous experience driving in:
  - [ ] rural areas
  - [ ] busy traffic
  - [ ] unfamiliar areas
  - [ ] light traffic
  - [ ] expressway
  - [ ] night driving
  - [ ] moderate traffic
  - [ ] highways
  - [ ] winter driving

### Additional Comments
### Section 4 - Assessment Findings

#### 1. Clinical Assessment

<table>
<thead>
<tr>
<th>Skill Tested</th>
<th>Functional</th>
<th>Skill Deficit Not Functional</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical</td>
<td></td>
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<tr>
<td>Strength/ROM</td>
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<td>Neck</td>
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<td>Upper Extremity</td>
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<tr>
<td>Lower Extremity</td>
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<tr>
<td>Visual Attention, Scanning &amp; Perception</td>
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<tr>
<td>Visual Attention</td>
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<tr>
<td>Useful Field of View (UFOV)</td>
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<td>If 55 or older</td>
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<td>Otherwise,</td>
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<td>Comprehensive Trail Making Test (CTMT)</td>
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<td>Or</td>
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<td>Trails A and Trails B</td>
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<td>Visual Scanning</td>
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<td>Scan Course (bVABA)</td>
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<td>Visual Perception</td>
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<tr>
<td>Motor Free Visual Perception Test (MVPT 3)</td>
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<tr>
<td>Awareness</td>
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<tr>
<td>Metacognition Interview</td>
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</tbody>
</table>

#### 2. On-Road Test #1 -

- Standard (G2/G) route
- Novice driver route

<table>
<thead>
<tr>
<th>Skill Tested</th>
<th>Functional</th>
<th>Skill Deficit Not Functional</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Awareness</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Metacognition Interview</td>
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<tr>
<td>Compensatory Strategy Use</td>
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<tr>
<td>Target Maneuvers Score</td>
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<tr>
<td>Driver instructor's Test Score</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skill Tested</td>
<td>Functional</td>
<td>Skill Deficit Not Functional for Driving</td>
<td>Comments</td>
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<td>------------------------------</td>
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<td>----------</td>
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<tr>
<td>Awareness:</td>
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<tr>
<td>Target Manoeuvres Score</td>
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<tr>
<td>Driver Instructor's Test Score</td>
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</tbody>
</table>

**Section 5 - Recommendations**

- Functional Driving Skills – Able to compensate; Errors made are not related to identified skill deficits.
- Functional Driving Skills – Regular Driving Lessons are recommended for skill improvement. Errors are related to "bad habits" not visual deficit issues.
- Novice Driver - Deficits in Driving Skills - Driver Training Required - The driver requires both knowledge course and on-road driving lessons to habituate use of strategies. This is recommended for novice drivers who require more practice with their driving skills and more opportunity to habituate the use of strategies. The MTO may or may not request a driver rehab on-road evaluation only as a method of follow-up.
- Deficits in Functional Driving Skills - Rehabilitation Candidate - TDL - Lessons recommended to be conducted with the driver rehab centre as it has been determined that the errors that have been made or risks that have been observed are related to the visual and/or medical condition.
- Deficits in Functional Driving Skills - Driving Not Recommended
- Visual and Medical Deficits Interfere with Safe Driving Ability - Driving Not Recommended.

Have the results been discussed with the patient? .................................................. Yes [ ] No [ ]

**Section 6 - Adaptive Equipment**

Does the patient require adaptive equipment to assist with compensating for functional deficits? .................................................. Yes [ ] No [ ]

If Yes checked [ ], please specify:

Was the on-road assessment conducted with the adaptive equipment noted above? .................................................. Yes [ ] No [ ]

**Section 7 - Additional Comments**

**Section 8 - Assessment Centre**

<table>
<thead>
<tr>
<th>Name of Assessment Centre</th>
<th>Date of Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address of Assessment Centre - Street No. and Name or Lot, Conc. and Township</td>
<td>Apt. No.</td>
</tr>
<tr>
<td>City, Town or Village</td>
<td>Postal Code</td>
</tr>
<tr>
<td>Signature of Occupational Therapist</td>
<td>Signature of Licensed Driving Instructor</td>
</tr>
</tbody>
</table>
OUTCOMES

- Functional Driving Skills – Able to compensate (License reinstated)

- Functional Driving Skills – Errors related to bad habits. Driving lessons recommended with a community driving school (Client given 60 days to do MTO road test)

- Deficits in Functional Driving Skills – Rehabilitation Candidate (Client given temporary driver’s license to train/re-eval with driver rehabilitation facility)

- Deficits in Functional Driving Skills – Driving not recommended (License remains suspended.)
WHAT HAPPENS WHEN SOMEONE PASSES?

- License is reinstated
- Yearly vision report
- If significant change, may have to do another evaluation
MTO MAY REVOKE WAIVER IF NO LONGER MEET THE REQUIREMENT

- For example if person is charged with
  - HTA 128 Speeding
  - HTA 136 Fail to Obey Stop Sign
  - HTA 138 Fail to Yield Right of Way or for Emergency Vehicle
  - HTA 140 Fail to Stop at Pedestrian Crossing
  - HTA 141 Improper Turn
  - HTA 147 Unnecessarily Slow Driving
  - HTA 148 Improper Passing
  - HTA 154 Improper Driving on Divided Highway
  - HTA 156 Unsafe Lane Change
  - HTA 158 Following Too Close
  - HTA 172 Racing on a Highway
  - HTA 175(11) Fail to Stop for School Bus
QUESTIONS ?