

**Applicant Checklist
for Low, Medium & High Volume Driveways / Local Road
Highway Occupancy Permit**

The following checklist has been prepared to aid in the preparation and submission of plans for a Highway Occupancy Permit Application other than a minimum use driveway application. These guidelines are not all encompassing nor are they applicable to every application. (Reference: 67 Pa. Code, Chapter 441 and PennDOT Publications 282).

General

- Project narrative
- Letter of review/acknowledgement of proposed development from Municipality
- Plans of an Acceptable Quality
- Land Use Questionnaire (Form M-950MPC) is Completed & Attached
- Verification of submission to PHMC
- Verification of E&S Plan Approval from County Conservation District (major earthwork/drainage)
- Estimated cost of work within Legal Right of Way
- Meeting minutes provided for all previous correspondence with the Department
- Verification of PUC coordination
- Access Covenant (form M-946) required/provided
- Within limits of planned PennDOT project
- TIS/TIA required/approved/signed/sealed
- Signal plans/traffic signal study required/approved
- Drainage Release required/provided
- Indemnification required/provide
- Bridge/structure review/approval
- Stormwater Consistency Letter

Application

- Application Signed & Dated by the Property Owner
- Application Submitted in the Name of Property Owner
- Correct Fee is Attached
- Application Includes Four Sets of Plans
- Access correctly classified as low/med/high volume
- Copy of the Deed or Lease of Property (> 15-year lease) is Attached
- Average daily traffic and broken down by class
- Driveway /ADT for the entire property (Pub 282, Ch 2 sub 2.7) not each individual driveway
- Existing driveways to be removed indicated on application
- All work proposed within ROW indicated on application

Transportation Impact Study / Transportation Impact Assessment

- Study signed and sealed
- Monitoring required
- Traffic volumes to include other development
- Gravity model completed
- LOS/mitigation acceptable
- Township commitment letter
- Gap study performed
- Traffic Counts < 3yrs old
- Optimized signal timings used for w/out development condition
- ITE trip generation used
- Internal capture percentage acceptable
- Pass-by rates acceptable
- Heavy vehicle calculated
- Base plans provided
- Transit, bike, or pedestrian impacts identified
- Surrounding development identified
- Sight Distance provided

- Left-turn lane warrant analysis provided
- Signal warrant analysis provided
- Current Synchro software used
- Summary of phased development

Plan Presentation

- North Arrow
- Scale Bar, plan view: 1"=50' or less (1"=50' and 25' preferred); details: 1"=20' or less
- Existing Shoulders (Type & Width)
- Existing Highway Pavement (Type & Width)
- Location and type of existing/proposed Drainage features (e.g., Pipes, Ditches, Inlets, Manholes, etc)
- Existing signs and pavement markings (Highway & For Access/Exit)
- Proposed signs, pavement markings, signal poles, etc at exact locations
- Location & Type of Existing/Proposed Highway features Guide Rail, Median Barrier, curb, etc.
- All Affected Utilities (All Existing & Proposed, Aboveground & Subsurface)
- Adequate topography along SR and frontage (buildings, landscaping, sidewalks, parking , etc.)
- Overall site plan indicating internal traffic patterns
- Dimension proposed driveway and SR if applicable
- Show existing driveways
- Show and dimension tapers (lane, shoulder, driveway, etc)
- Driveway angle dim./as close to 90 degrees as possible
- Show Limits of approved paving in plan
- Distance to nearest driveway and intersection to left/right for both sides of State Highway
- SR and Segment/Offsets provided and correct
- All relevant property owners/lines shown
- List ADT's for each separate driveway
- Posted speed limit provided on plans
- Applicable General Notes / WZTC notes
- Reference HOP application Number
- Limits of work indicated
- Centerlines and stationing provided
- Right-of-Way Lines (Both Sides & Width) & Type (Legal, Limited Access, etc.)
- Location map provided on the plans
- Legal R/W reference/note provided
- Appropriate RC & TC standards/latest date ref.
- PA one call number and general note
- Legal verification of easements related to HOP provided and referenced in general notes
- Planned Plans/report signed and sealed by PE/PLS/RLA
- Signed by PLS if roadway improvements
- No references to Preliminary plan
- Pavement marking maintenance note
- Red-Lined plans to be returned

Access Configuration – Driveways/Local Roads

- Number of driveways acceptable
- Justification for More than Two (2) Driveways With Section 441.7(e).
- Meet 441 figures/dimensions
- 10' tangent Distance Between End of Driveway Radius & Intersection Radius
- 20' tangent Distance in Curbed Area or 30' in Uncurbed Area Between Driveway & Intersection
- 20' between Driveways serving the same property
- 50' between Driveways and ramp of speed change lane
- Permanent Curb Defines Driveways When Multiple Driveways Are Less Than 50' Apart
- PENNDOT Standard Curb Will Be Installed (RC-64M)

- Aligns w/ driveways/road/lanes across highway
- Maximize distance from intersections
- Classified correctly as local road vs. driveway
- Driveway not to encroach on adjacent property frontage (M-950R)
- Returns offset according to 3R criteria
- Radius returns 25'/35' for local road
- Sufficient for trucks/largest vehicle
- Extend full quadrant
- Single egress lane for unsignalized intersections
- Restricted driveways- radii designed to discourage wrong way movements
- 16' min. lane width if channelization island
- Driveway throat length
- PC/PT/break points identified/dimensioned
- Spot elevations along radii at 10' intervals
- Contours needed/provided

Access Profile – Driveways/local Roads

- Maintains SR travel lane and shoulder cross slope across the driveway
- Difference Between Cross Slope of Roadway Shoulder and Grade of Driveway Can Not Exceed 8%
- If on high side of superelevation >2%, slope is 2% away
- Provided and meets 441 figure 1
- Existing/proposed grades for SR and driveway
- Centerline/EOTL/EOP/legal ROW/crosswalk

Sight Distance – Driveways/Local Roads

- Available and minimum requirements indicated
- Meets 441 minimum safe stopping sight distance
- Driveway location maximizes sight distance
- Parked cars obstruct sight line for exiting vehicles?
- Embankment removal – sight line profile provided
- Sight distance provided for ex. Driveways if widened
- Temporary Barriers obstructs sight lines
- Maintenance of sight distance note

Typical Section

- Provided
- Utilize Superpave/PennDOT descriptions
- Minimum thickness provided
- Pavement design approved by PennDOT
- Pavement history obtained/prop. Match ex.
- Ex. State highway pavement type (Bit. Or Conc.)
- Sawcut full depth pavement noted
- Leveling/ cross-slope correction shown if applicable
- Minimum 2% cross slopes on widened SR thru and auxiliary lanes
- Trench restoration detail with pavement design
- Seal with PG 64-22
- Bituminous tack coat indicated
- Min. 2' pavement width at tie-in point
- Bottom of subbase at or below existing for SR widening
- Open cuts are prohibited in bituminous pavement < 5years old and in all concrete pavement
- Provide conduit for future signalization

Roadway Geometrics

- Centerline
- Stationing if improvement to SR are proposed
- Edge line or Centerline milled rumble strips
- Horizontal curvature info if construction/driveway is along a state highway curve
- Vertical curvature – ASSHTO criteria (PVI sta, Elev, VC length, MO, SSD/HLSD, PVC, PVT)
- Ex state highway lane/shoulder widths
- Proposed and Existing Lane widths – 3R design criteria (13'/14 curbed)
- Contour/Grading limits
- Roadway centerline profile (widening)
- Intersection alignment
- Intersection radii
- Adjustment profile required
- Milling required
- Overlay required

Shoulders

- Shoulder widths, 3R design criteria, 2' min
- 4% cross slope if curbed or >8' in width; 6% <=8'
- Slopes away from high side of superelevation at 2%
- Low side of superelevation extends at SE cross slope when > required slopes
- 100' of full-depth shoulder upgrade on both sides of driveway

Left Turn Lanes

- Symmetrical widening about roadway centerline
- Offset (opposing) left turn lanes
- 12' lane widths desirable; 10' min(11' min if trucks)
- Full width overlay provided within widening limits
- Tapers and left turn lane bay tapers dimensioned
- Transverse gore markings required and labeled
- Bay taper = TC-8600 requirements
- Bay length = required length in TIS/analysis
- Transition tapers per TC-8600
- Hour glass effect (provide two –way center left-turn lane)
- Through traffic directed over existing shoulder, full-depth paving for rollover/grade break correction
- SR Profile and Cross sections provided every 50' or contours and spot elevations every 20'
- Appropriate lane use control signs provided
- Agreements of release (M-950R) provided

Right Turn Lanes / Deceleration

- 14' curbed lanes; 12' uncurbed lanes with 3R shoulder
- 100' bay tapers
- Tapers and right turn lane bay tapers dimensioned
- Bay length = required length in TIS/analysis
- Traffic directed over existing shoulder, full-depth paving for rollover/grade break correction required
- SR Profile and Cross sections provided every 50' or contours and spot elevations every 20'
- Appropriate lane use control signs provided
- Agreements of release (M-950R) provided

Curb

- Reference RC-64M and current approval date
- Pavement base drain or combination storm/underdrain provided
- 5' curb end taper with a 0" reveal at finish grade

- Provide bottom curb elevations every 10'/20'
- Curb ramps if sidewalk; specifies RC-67M and type
- Label type of curb in accordance with Pub 408
- Dimension at POT, POC, PT, PC, PCC
- Eliminate curb along taper if no adjacent curb
- 4 foot flat area sloped at 2% away behind curbing
- Label/dimension depressed curb
- Min. sidewalk width is 4' with passing or 5'

Medians/Islands

- Driveway medians provided for med/high vol.
- Dimensions and materials of islands provided
- Flexible delineators/hazard markers
- Medians/islands offset 4' behind edge/curb line
- Area sufficient – meets Pub 149 clearance req. for signals

Cross Sections

- Match ex but with min. 2% widening slope – tangent roads
- Match existing superelevated slope – curved roads
- Cross sections provided for SR improvements
- Centerline and breakpoint elevation provided
- Label existing and proposed cross slopes
- Dimensioned from centerline
- ROW location shown
- Cut/fill slopes provided/labeled/acceptable
- Grading outside of ROW; ROW or easements obtained
- Provide superelevation transition notes
- Fill slope benching/detail provided
- 50' or 25' interval
- Scale at 1"=5' desirable, 1"=10' max
- Guide rail warranted

Signs

- Correct legend, designation and size – Pub. 236M
- Proposed and Relocated sign positions shown
- Non-standard sign details
- Stop sign, R1-1 required
- R3-7 or R3-8 lane use control signs required
- R4-7 and OM1-3 signs for medians
- Right clearance markers at obstructions required
- "Do Not Enter" R5-1, One Way R6-1L and R6-1R on sign post on each side of access (6 signs)
- "No Left Turn" signs, near right and far left, entering and leaving

Pavement Markings

- Size, color and orientation indicated/correct
- Existing size, color shown
- Pavement marking eradication note
- Pavement marking maintenance note
- Stations or seg/offset for stop bars/lane separation lines, etc
- Reference TC-8600, current edition
- Stop bars – placed according to turning templates
- Hot thermoplastic markings other than longitudinal lines
- Proposed labeled "match existing" at limits of work

- Crosswalks (across all legs if signalized)
- Minimum 2 arrows per auxiliary lane; (first arrow 20' from SB; 20' bet. Subsequent arrows)
- No "ONLY" legends for auxiliary lanes unless lane drop

Maintenance and Protection of Traffic

- Typical Notes Provided
- Sequence/narrative referencing PATA figures
- TCP
- Detour required/approved
- Photocopies of PATA figures
- WZTC notes:
 - In accordance with pub 213, current edition
 - Peak hour restrictions
 - all WZTC signage shall be Type III sheeting
 - remove all short term WZTC signage upon completion of the days work period
 - do not stop traffic flow within the area for more than 5 minutes at any one time
 - contractor shall comply with Act 229 (for S > 45 mph)
- Located near signalized intersection (note provide)

Guide rail

- Required per DM2
- Impact attenuators provided/shown/correct
- Guide rail to maintenance note
- Substandard guide rail

Right-of-Way

- Dimension to physical centerline
- Dedication required
- Drainage easements required
- Slope easement required
- Construction easement required
- Convert required r/w to legal r/w
- Deeds provided with R/W submission
- Sight line easement required
- Reference PennDOT plan of record

Release Process

- Modification to adjacent frontage
- Change adjacent driveway
- Separate application for effected driveways
- Effected driveways brought up to code

Traffic Signal

- Separate Traffic submission required
- Municipality awareness letter/permit
- Interconnection required
- 10' max distance between push button and landing area
- Pedestrian study required
- Standard notes provided
- Build volumes match analysis
- Signal warrants met
- Left-turn warrant
- Signal phases work with ped movements

- Clearance calculation
- Signal timings
- Pedestrian Clearance
- Countdown timers
- 4' pedestrian walk-way provided
- Intersection alignment
- Mast arm location, size in 5 ft increments, 65 ft max
- Support location in accordance with Pub 149 offsets
- Controller cabinet shown on plan
- Signal equipment within right-of-way or easement
- Overhead street name signs correct legend
- Permit General Notes
- Final conditions shown on the Permit Plan
- Revisions shown
- Plan Legend complete and accurate
- Timing diagram completed and correct
- "No Turn on Red" required
- Right-of-way lines shown
- Permit Plan updated to meet current field conditions
- Speed limits and grades provided on plan
- Distances to the nearest signal indicated on plan
- Preemption provided
- Preemption note

ADA Compliance

- Upgrade ADA if pedestrian path is changed
- Proposed sidewalk > 100' must meet current standards
- Maintain 4' sidewalk width
- Upgrade curb ramp w/in 15' of proposed sidewalk
- Upgrade curb ramps w/in 5% of proposed sidewalk (>300')
- ADA access provided
- Pedestrian study required/approved
- Proposed sidewalk limits are logical
- Relocate inlets within curb ramps
- Traffic Control accommodates pedestrians
- Technically Infeasible Form included/approved
- Acceptable cross-slopes
- Adequate plan details provided
- Inspection form provided/completed
- Note for pedestrian facilities outside right-of-way
- Accessible push-button
- Reserved property compliance

Drainage - Hydrology

- All drainage features shown with flow arrows
- Drainage report/signed/sealed
- Pre- vs. post-development peak flow analysis
- Post < or = to Pre
- Possible to maintain/ not alter Dept. facilities
- Application form municipality
- Drainage release required
- Narrative
- Pre/post Drainage area/ site plans

- Proposed flow into/out of ROW consistent with existing grades/flow
- Drainage easement required
- 'C' coefficients; curve numbers
- Time of concentration (5 min. if pipe 30" or less)
- Tc paths shown on drainage area plans
- Intensity rate correct
- Correct Return periods

Drainage - Inlets

- Inlet drainage area plans
- Inlet spacing and location
- Not located in travel lane or radius return
- TG and invert elevations
- Inlets not sumped
- Standard type/size indicated and size
- Bicycle safe grates if within roadway
- Inlet capacities
- Flanking inlets at low points
- Gutter capacity/spread

Drainage - Pipes

- Pipe capacities analysis
- Minimum 18" pipe within ROW
- Minimum 15" pipe under driveways
- Pipe information provided (type, length, slope, inverts, etc.)
- Max/min fill hts
- Pipe nomenclature consistent with DM 2
- 1' minimum cover
- Downstream pipe analysis if increase flow
- Culvert analysis; inlet/outlet control
- Pipe profiles
- 2" drop across inlets
- Pipe velocity, 3-8 fps
- Trench restoration detail
- Pavement base drain details
- Extension-same type, slope
- Misc. details
- Clean and clear debris for ex and new pipes note

Drainage – Channels and Swales

- Capacity analysis
- Typical swale section
- Encroach upon shoulder/lane
- Flow across driveway acceptable
- Swale slope acceptable
- Grading details provided

Drainage – Stormwater Management Basins

- Detention basin analysis
- Does not point discharge toward State Highway
- Minimum 8 feet from ROW because of basin embankment requirements

Utilities

- Separate application submitted
- Note all utility poles are outside pavement
- Note utility permits take precedent over driveway HOP plan
- Updated Act 287 note
- Separate application for street lights
- Provide One-Call number
- Acceptable pole location
- PennDOT fiber optic impacted

Condition Statements

- Transfer local road to municipality
- Monitoring required
- Future curb ramp improvements required
- Embankment/Vegetation maintenance required
- Phased development

Waiver Requests

- Alternatives considered
- Right-of-way correspondence/documentation
- Indemnity agreements
- Waiver approval