

HAMILTON COUNTY ENGINEER'S

SCOPE OF SERVICE

1. PROJECT IDENTIFICATION:

Road Name: Blue Rock Road and Cheviot Road (North intersection)

Road No: 71 & 73

Project No. 500510

2. PROJECT INFORMATION:

Limits: Realignment of Blue Rock Road at the north intersection of Cheviot Road. See additional information and the preliminary schematic.

Length: To be determined based upon design parameters such as the required number of turn lanes on the south leg of Blue Rock Road, the number of receiving lanes on the relocated road and the required taper lengths for these lanes. See additional information.

3. AGREEMENT BETWEEN CONSULTANT AND:

Hamilton County

ADDITIONAL PARTIES INVOLVED IN PROJECT:

None

4. METHOD OF FINANCING:

Engineering: Hamilton County road and bridge funds.

Construction: Undecided at this time.

5. WORK PHASES INCLUDED IN AGREEMENT:

PHASE A Plan Submission: Line, grade and typical sections on Base Sheets to be used in final plans. Critical cross sections are to be plotted. Potential design problem areas are to be identified.

PHASE B Plan Submission: To conform to Phase A recommendations. Final review submission is to include Special General Notes and Specifications and quantities.

6. PLAN SCALES:

PLAN: 1" = 20' Min.
PROFILE: Hor. 1" = 20' Min. Vert. 1" = 5' Min.
CROSS SECTIONS: Hor. 1" = 5' Min. Vert. 1" = 5' Min.

7. JOURNALIZED SPEED LIMIT:

35 mph

8. NUMBER OF LANES/ TYPICAL SECTION:

Number of Lanes:
See additional information sheet.

Lane Widths:

Unless otherwise directed by the Engineer, the left-turn lanes shall have a minimum of eleven (11) feet. The width of the outside, traveled lanes will be determined by the edge treatment recommended by the Consultant. If curbs are not used, the traveled lane will have a minimum width of twelve (12) feet and the adjacent, paved berm(s) will have a minimum width of three (3) feet. If a rolled curb and gutter section is used, the lane width adjacent to the curb section will have a minimum width of eleven (11) feet. If a vertical curb section is used, the lane width adjacent to the curb will have minimum width of twelve (12) feet. Interior traveled lanes will have a minimum width of twelve (12) feet.

Pavement Section:

For areas of new roadway pavement and/or widening, the anticipated typical pavement section is eight (8) inches of Bituminous Aggregate Base, one and one-half (1 1/2) inches of Asphalt Concrete (Leveling course) and one and one-half (1 1/2) inches of Asphalt Concrete (Surface course). As part of the Phase A report, the Consultant shall utilize the information obtained from the geotechnical report and the ODOT L&D manual to verify that this typical section is adequate for the soil conditions present.

Salvage Existing Pavement: X

In those areas where the existing pavement is to be salvaged, the Consultant shall recommend the pavement treatment necessary to rehabilitate/improve the existing pavement to a sufficient typical section based upon the pertinent design factors, such as the soil conditions of the area, traffic volumes, etc.

Curbs: Report to Recommend: XX

Type: As part of the Phase A submittal, the Consultant is to make a recommendation to the Engineer regarding curbs, i.e. whether the curbs are desired or may be necessitated by the detention requirements. If curbs are recommended, the Consultant shall also recommend the type of curb, i.e. vertical, curb & gutter, etc.

Shoulders/Berms: Report to Recommend:

Type:

Safety Grading Criteria: Partial:

Guardrail: Type:

Median:

Clear Zone Grading:

Fencing:

Lighting:

9. ALIGNMENT:

The existing westbound leg of Blue Rock Road is to be relocated as indicated on the schematic drawing. The existing alignment of Cheviot road is to be basically followed.

10. PROFILE:

The existing profiles of the roads to remain in place are to be followed as much as possible. Consultant to determine the profile for the relocated portion of Blue Rock Road.

11. SIGNAGE:

Phase A:

Phase B: X

12. SIGNALS:

Existing Signals:

To be Replaced: X

To be Modified: X

Signal design to reflect the changes in the lane configurations and timing patterns. This could include, but not be limited to, the addition of left-turn arrows, right-turn overlap from eastbound to southbound and left-turn on arrow only for northbound to westbound.

Proposed (New) Signals:

Locations: _____

Phase A to recommend locations: _____

Signal Warrants: _____

Phase A: _____

Phase B: _____

Unless otherwise specified by the Engineer, ALL traffic signal improvements shall utilize Light Emitting Diode (LED) signal heads, signal lamp units and pedestrian units.

13. STRIPING:

Phase A: _____

Phase B: X

Type: All pavement markings within three hundred (300) feet of the proposed intersection will be thermoplastic. All other pavement markings will be paint.

14. DELINEATION:

Delineators: _____

RPMs: X

15. DRAINAGE:

Drainage Criteria: State _____ County X Public Works _____
Other _____

Phase A Preliminary Plan: _____

Existing: Surface X Closed X

Proposed: Surface X Closed X

Special Flood Hazard Area (SFHA): _____

Storm Water Pollution Prevention Plan: _____

Flood Plain Study Required: _____

Channel Change Study Required: _____

16. BRIDGE CROSSINGS:

Number of Bridges: None

Cross Roads: _____

Streams: _____

Supplemental Site Plan for Streams: _____

Culverts: _____

Alternates Required: _____

Railroads: _____

Railroad Location Plan: _____

Railroad Site Plan: _____

Pedestrian: _____

Mass Transit: _____

Other: _____

17. MISCELLANEOUS DESIGN CONSIDERATIONS:

Sidewalks: _____

Bikeways: _____

Railroads: _____

Mass Transit: _____

Service Roads: _____

18. RETAINING WALLS:

Number of Retaining Walls: None foreseen at this time.

Type(s) of Retaining Walls: _____

Phase A: _____ Wall Justification: _____

Phase B: _____

Any wall over three (3) feet in height, as measured from the top of the footer to the top of the wall, **MUST** be engineered and a wall profile, indicating the height of the wall, and other pertinent wall details **MUST** be included in the plans. The plan view(s) or a detail for the wall **MUST** indicate the length of any tie-back systems that are required for the construction of the wall. **ALL** pre-manufactured walls, i.e. Keystone walls, **MUST** be designed in strict accordance with the Manufacturer's requirements.

19. MAINTENANCE OF TRAFFIC:

Maintenance of Pedestrian Traffic: _____

Maintenance of Railroad Traffic: _____

Maintenance of Vehicular Traffic: _____

Temporary Road(s): _____ Phase A to Recommend: _____

Temporary Road Plans & Notes by: County _____ Consultant _____

Detour Plan Prepared by: County _____ Consultant _____

At this time, it is presumed that construction is to be completed under traffic. To the satisfaction of and subject to the Engineer's review and approval, a tentative outline for the sequence of construction, a maintenance of traffic plan and/or maintenance of traffic notes in sufficient detail for the proper control of traffic through the project, especially involving ingress to and egress from the abutting properties within the project area shall be prepared.

As may be applicable during the preparation of the plans, the Consultant shall work with the Engineer to determine if alternative methods of handling traffic would be warranted and desirable during the construction of the project. These measures may include, but not be limited to, the detouring of all through traffic while maintaining local traffic or the maintaining of through traffic on a one-way only basis. If the Engineer authorizes other methods, the Consultant will work with the Engineer to determine if special restrictions are to be enforced during the implementation of the alternate measure(s), i.e. a total time duration, a daily time/hour restriction, etc. The Consultant will also work with the Engineer's Traffic Department to determine the detour route and prepare the necessary detour plan(s). As necessary for the alternative measures, the Consultant is to prepare a tentative outline for the sequence of construction, a maintenance of traffic plan and/or maintenance of traffic notes in sufficient detail for the proper control of traffic through the project, especially involving ingress to and egress from the abutting properties within the project area.

This item of work shall also include the preparation of any necessary plans that indicate temporary work zone pavement markings and/or signs that are to be included in the project, especially where the number of traveled lanes and/or the width of traveled pavement are to be decreased during construction.

All items of work relating to the maintenance of traffic are to be submitted with the final plan review submission.

20. UTILITIES AND OTHER AGENCIES:

Water	(XX)	Sanitary	(XX)
Electric	(XX)	Gas	(XX)
Telephone	(XX)	Cable TV	(XX)
Public Works	(XX)	ODOT	()

Others: _____

ALL utility companies and other agencies, including any that may have facilities within the project limits and **ARE NOT** listed above, shall be contacted in writing. **ALL** existing facilities and utilities, including house connections, shall be indicated on the plans as required by Section 153.64 O.R.C. (H.B.538).

ALL utilities and other agencies shall be furnished with the necessary copy/copies of the preliminary plans so that utility or agency may indicate and/or verify the location of any facility.

ALL utilities and other agencies shall be also be furnished with a copy of the final, detailed plans for final review and approval as necessary.

A copy of **ALL** transmittal letters and a copy of **ALL** responses shall be submitted to the Engineer.

21. ESTIMATED QUANTITIES:

Phase A: _____

Phase B: X

Quantity Splits: _____

22. CONSTRUCTION COST ESTIMATE:

Submit with Letter of Interest: X

Phase A: _____

Phase B: _____

25. TRAFFIC DATA:

State _____ County X Consultant _____

The County will supply information on existing counts if this information is currently on file. The Consultant shall determine if adjustments to these counts are warranted or if additional counts are required. The Consultant will be responsible for the adjustments or for the additional counts. The Traffic Department must approve all traffic data prior to use in design.

26. GEOTECHNICAL/SUBSURFACE INVESTIGATION:

State _____ County X Consultant _____
Other _____

Work to be completed as needed. The Consultant is to determine, in conjunction with the Engineer, the amount and type of work to be performed. The Consultant shall work with the geotechnical firm to ensure that the geotechnical information necessary for the design of the various components of the improvements, i.e. pavement section, retaining walls, is obtained. This information may include the determination of the CBR, the Attenburg limits and the moisture content of the soil. The Consultant will be responsible for establishing the required field control and for field locating the boring locations.

27. PRIOR STUDIES:

“North Bend Road/Cheviot Road Corridor Study” completed by Parsons Brinckerhoff in August, 2003.

28. PUBLIC HEARINGS/INFORMATIONAL MEETINGS:

Public information meeting(s) may be scheduled.

Consultant's Responsibility: Prepare the necessary exhibits and attend the meeting(s) if scheduled. Required Exhibits will show the proposed location of improvements, the proposed profile and critical and/or typical cross-sections and the preliminary Right-of-way.

ADDITIONAL INFORMATION

BLUE ROCK ROAD AND CHEVIOT ROAD – NORTH INTERSECTION

500510

- 1) The Consultant is to determine if dual left-turns from existing Blue Rock Road/Cheviot Road to the relocated portion of Blue Rock Road are warranted under current traffic volumes or will be warranted under future traffic volumes. The Consultant is also to determine if a single through lane on any leg of the intersection will be sufficient for future traffic volumes.
- 2) At a minimum, the north leg of the proposed intersection (Cheviot Road) will have three lanes (one northbound, one southbound through and one southbound right-turn). At a minimum, the south leg of the intersection (Blue Rock Road) will have either three or four lanes depending on the number of turn lanes required (one northbound through, one southbound and one or two northbound left-turn lanes). At a minimum, the relocated leg of the intersection (Blue Rock Road) will have either three or four lanes depending on the number of receiving lanes required (one eastbound right-turn, one eastbound left-turn and one or two westbound receiving lanes). As noted above, the Consultant is to verify the number of lanes required on each leg of the intersection.
- 3) The Consultant is to determine the limits of the improvements based upon the number of lanes required and the tapers required for the additional lanes.
- 4) As noted in the Scope, the design of the signal is to be modified as required by the final number and configuration of the lanes at the intersection.
- 5) The existing pavement is to be salvaged to the greatest extent possible. As may be necessary, the Consultant shall determine and field mark the locations where pavement cores are to be taken. The County will arrange for a testing company to take the pavement cores.
- 6) In those areas where the existing pavement is to be salvaged, the Consultant shall recommend the pavement treatment necessary to rehabilitate/improve the existing pavement to a sufficient typical section based upon the pertinent design factors, such as the soil conditions of the area, traffic volumes, etc.
- 7) As necessary, the Consultant shall work with the geotechnical firm to ensure that the soil data that is necessary for the design of the various components of the improvements, i.e. pavement section, retaining walls, is obtained. This information may include the determination of the CBR, the Attenburg limits and the moisture content of the soil.
- 8) The width of the proposed right-of-way is to be a minimum of eighty (80) feet through the improved intersection area, unless the number of lanes to be constructed requires additional right-of-way width. To the greatest extent possible, the proposed right-of-way is to abut the north line of the parcel owned by Hamilton County and the parcels owned by the White Oak Christian Church. The right-of-way width shall be tapered to a minimum width of sixty (60) feet outside of the intersection area.
- 9) Unless the County previously obtains the right-of-way and easements through the parcels owned by the White Oak Christian Church, the preparation of the right-of-way/easements documents will include the preparation of a dedication plat and required documents for the Church parcels.

- 10) The improvement will also include the removal of the existing pavement on Blue Rock Road that will no longer be used by traffic. The disturbed area is to be brought to grade with clean embankment material and restored with topsoil and sod.