CITY GENERAL NOTES

1. Work in this project shall conform to the latest editions of the Virginia Department of Transportation (VDOT) Road and Bridge Specifications, the VDOT Road and Bridge Standards, the Virginia Erosion and Sediment Control Handbook, the Virginia Erosion and Sediment Control Regulations and the City of Harrisonburg Design and Construction Standards Manual. In the event of conflict between any of these standards, specifications or plans, the most stringent shall govern. All utilities to be dedicated to the City of Harrisonburg Municipal Water and/or Sanitary Sewer System shall be constructed and tested to conform to Commonwealth of Virginia/State Board of Health Waterworks and/or Sewerage Regulations and the City of Harrisonburg Design and Construction Standards manual.

2. Erosion and sediment control measures shall be maintained continuously, relocated when and as necessary and shall be checked after every rainfall. Seeded areas shall be checked regularly and shall be watered, fertilized, reseeded and mulched as necessary to obtain a dense stand of grass.

3. All drain inlets shall be protected from siltation. Ineffective protection devices shall be immediately replaced and the inlet cleaned. Flushing is not an acceptable method of cleaning.

4. When the crushed stone construction entrance has been covered with soil or has been pushed into the soil by construction traffic, it shall be replaced with a depth of stone equal to that of original application.

5. The location of existing utilities as shown is approximate only. The contractor is responsible for locating all public or private utilities which lie in or adjacent to the construction site. The contractor shall be responsible for repairing, at his expense, all existing utilities damaged during construction. Forty-eight (48) hours prior to any excavation call Miss Utility 1 (800) 552-7001.

6. All underground facilities located within the City's rights-of-way shall be installed prior to the placement of any part of the pavement structure.

7. Installation of concrete storm pipe shall comply with VDOT standard Drawing PB-1.

8. All materials used for fill or back-fill shall be free of wood, roots, rocks, boulders or any other non-compactable soil type material. Unsatisfactory materials also include man-made fills and refuse debris derived from any source.

9. Satisfactory material for use as fill for public streets include material classified in ASTM D-2487 as GW, GP, GM, GC, SW, SP, SM, SC, ML and CL groups. The moisture content shall be controlled within plus or minus 2 percentage points of optimum to facilitate compaction. Generally, unsatisfactory materials include materials classified in ASTM D-2487 as PT, CH, MH, OI, OH, and any soil too wet to facilitate compaction. CH and MH soils may be used subject to approval of the City Engineer. Soils shall have a minimum dry density of 92 lb./cu. ft. per ASTM D-698 and shall have a plasticity index less than 17.

10. Compaction of fill material under building slabs shall be based upon recommendations of soils engineer after completion of standard Proctor test and shall meet bearing requirements of architect of buildings. The contractor shall be responsible for testing.

11. Materials used to construct embankments for any purpose, back-fill around drainage structures or in utility trenches or any other depression requiring fill or back-fill shall be compacted to 95% of maximum density as determined by the standard Proctor test as set out in ASTM standard D-698. The contractor shall, prior to any operations involving filling or back-filling submit the results of the Proctor test together with a certification that the soil tested is representative of the materials to be used on the project. Tests shall be conducted by a certified materials testing laboratory and the certifications made by a licensed professional engineer representing the laboratory.

12. Embankment fill and trench back-fill shall be placed in lifts at a maximum uncompacted depth of 8-inches and 6-inches, respectively. Density tests shall be conducted at the following minimum frequencies:

(a) Embankments for roads, street, dams, etc.;
One test per lift per 10,000 square feet of lift.
(b) Back-fill around structures and in trenches:
One test per lift per 500 lineal feet of trench.

13. Compaction tests for street pavement structure shall be made in cut and fill areas at the following minimum frequencies:
(a) Sub-Grade: One test per lane per 500 lineal feet
(b) Stone Base: One test per lane per 6" compacted lift per 500 lineal feet
(c) Hot Asphaltic Concrete: One test per lane per lift per 500 linear feet

14. All excavations, including trenches, shall be kept dry to protect their integrity.

15. Test results shall be submitted to the City Engineer. Failure to conduct density tests shall be cause for non-acceptance of the facility. Tests shall be conducted at the sole cost of the developer or his agent.

16. Combination under-drains type CD-1 shall be installed at the lower end of cut sections. Under-drains type CD-2 shall be installed at the low point of all vertical curves.

17. Standard UD-1 and UD-3 under-drains shall be installed where indicated on plans and further where determined necessary in the field by City Inspectors.

18. Pavement design is based upon sub grade CBR of 3 and an RF of 2. Upon bringing the street sub grade to approximate elevation the contractor shall cause soil samples for CBR determination to be taken at a maximum interval of 300 feet measured along the street centerline. The CBR of each sample shall be determined and the average CBR shall be used to determine the pavement structure requirements. The pavement materials and the amount thereof as shown on the typical street section may be modified by the results of these tests in accordance with the City standards and if approved by the City Engineer. A copy of all soils test results shall be submitted to the City Engineer prior to the placing of any base or sub base material. This work shall not be required on streets classified as Local/Sub-Class A. Paving sections shall not be reduced below the City minimum section.

19. City Inspectors have full authority to reject fill or backfill materials, require undercutting or sub grade stabilization, require provisions for sub drainage, or require other measures which affect the integrity of road and utility construction. Failure to comply with inspector's directives shall be cause for non-acceptance to the facility.

20. Traffic control on public streets shall be in conformance with the Manual of Uniform Traffic Control Devices and as further directed by City Inspectors.

21. Any discrepancies found between the drawings and specifications and site conditions or any inconsistencies or ambiguities in drawings or specifications shall be immediately reported to the engineer, in writing, who shall promptly address such inconsistencies or ambiguities. Work done by the contractor after his discovery of such discrepancies, inconsistencies, or ambiguities shall be done at the contractor's risk.

22. A preconstruction conference shall be held prior to the start of the construction. The contractor shall arrange the meeting with the City Engineer.

23. Install City standard street centerline monuments where required for new streets.

24. All proposed public water and sewer mains to have a dedicated easement in place and recorded before the City of Harrisonburg will turn on the public water supply. Owner to coordinate with surveyor, owner's attorney, and City Engineer's Office for easement plat and City standard Deed of Easement. The plat and deed to be reviewed by City prior to recordation and after recordation the deed book and page number or copy of Clerk of Court recordation receipt to be provided to City Engineer Office (Doug Adams).

ADDITIONAL NOTES

25. Site statistics: Zoned R-2, Total Area = 670,257 SF (15.387ac.), Disturbed Area = 409,460± SF (9.4ac.)

26. Water service to Lots shown in Water Service Table (sheet 5). Water meters to be placed 1' behind proposed pavement or sidewalk. If PRV's are to be set inside the building, they are the responsibility of the owner for installation and maintenance.

27. Sanitary sewer lateral shall be 4" PVC SDR 26 PVC (as noted on plans) from main to easement limit at a minimum slope of ¼" per foot (see DCSM Chapter 7 for details).

28. All storm sewer piping shall be either HDPE smooth walled or reinforced concrete pipe (RCP) Class III.

29. Sign: Sign location and size to be determined. If owner requires a sign, sign contractor and/or owner to coordinate with the City Zoning Administrator for sign size, type, location, permits and fees. Sign will be built per City Sign Ordinance.

30. Site Lighting: Site lighting is not planned. If site lighting is proposed, it will need to be designed with City Specifications, and approved by the City.

31. Trash collection: Trash collection will utilize City curbside pickup.

32. Emergency Access: During construction the entrance is to remain open onto the site at all times. All parking drive areas are to be designated as permanent fire lanes with no parking allowed. Ddesignated fire lane with no parking allowed along back of building.

33. The Erosion Control Narrative is a part of these plans. Contractor to comply with any additional items contained in the narrative.

34. Electric service shall be underground, single phase. The contractor is responsible for coordinating with HEC for service connection.

35. A standard Construction Entrance per VESCH guidelines will be required prior to start of construction.

36. Attached units shall be separated by a noncombustible party wall to the roofline.

37. City std. fire hydrant to be installed as shown on plan, prior to construction of building

38. Contractor to coordinate relocation of poles on Greystone street and Smith Avenue with HEC (Brian Odell 434-5361).

39. Columbia Gas is to relocate gas lines as needed to avoid conflict with storm pipes on Greystone Street. Columbia Gas has been contacted regarding this project. Contact Columbia Gas (Bernie Gardner 540-851-2316) prior to construction.

40. Landscaping trees/shrubs shown are conceptual only. Contractor to mulch or seed with grass all areas not built upon or paved.

41. Access to upper lots will be pared off with private access easements. The maintenance of the shared driveway will be the responsibility of the 2 home owners that share the easement, there will not be an association maintaining these easements.

42. Emergency Access gates to be, installed, the City has the option of installing there own lock with a chain that can be cut with a Bolt Cutters, or Knox-Box to be installed on the end of Smith Ave. beyond the end of the temporary cul-de-sac.

43. The Topo is from the City's 96 topo, Benner and Associates have confirmed the location of the property boundaries, utility lines, and numerous spot shots along Smith Ave, and Greystone Street.

44. Contractor to connect to the existing water lines on either side of Smith Ave. With a water main tie-in, and a dead end fire hydrant relocation and line extension. See plan view and water line connection note.

45. Existing City Manholes #38/10 & 48/71; City forces to perform core drill upon payment of applicable code fees. Contractor to provide OSHA safe trench, including all traffic control, and coordinate schedule with city.

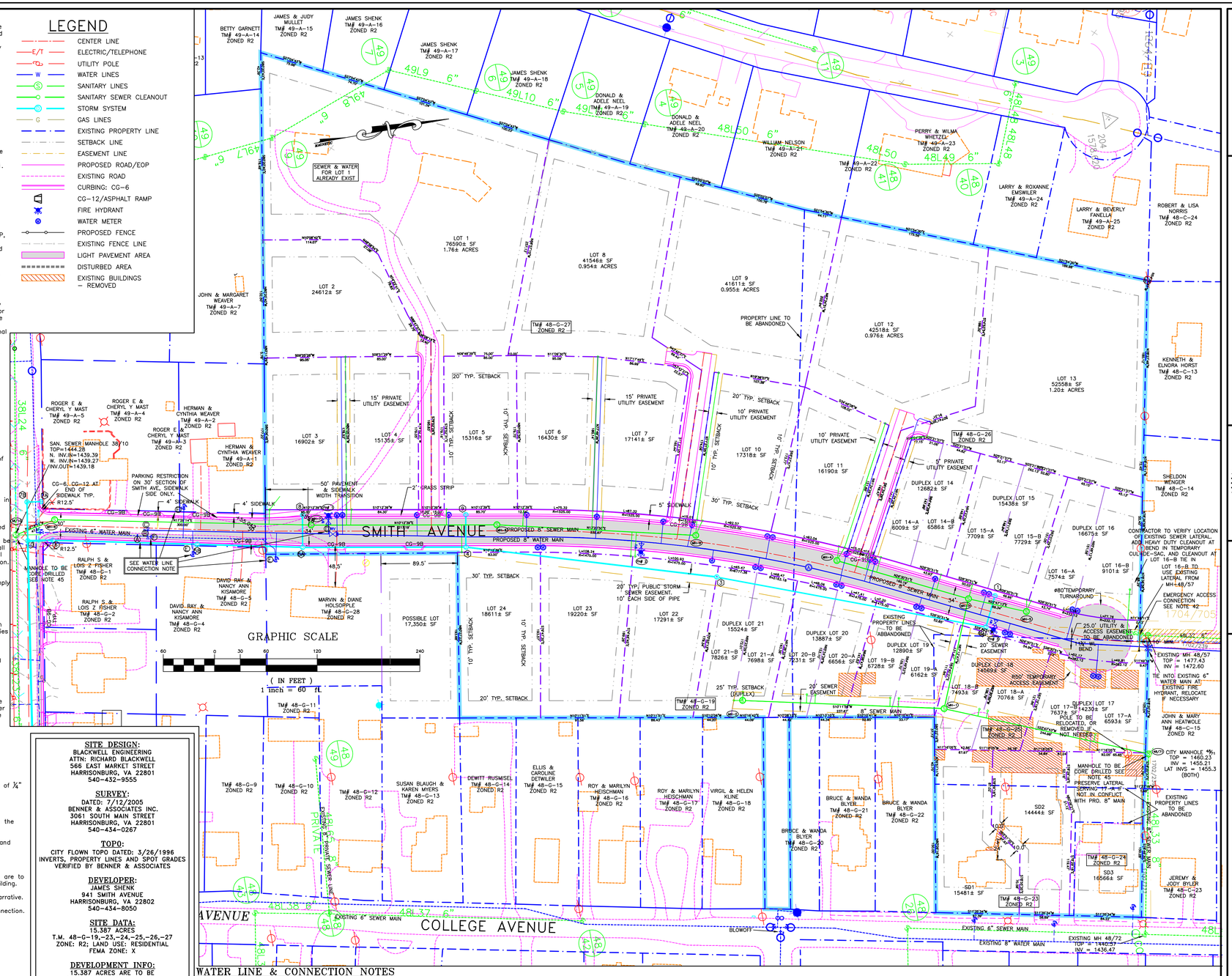
46. Along the 30' wide section of Smith Avenue a MUTCD standard R7-13A sign "NO PARKING THIS SIDE" is to be placed on the East side of the road.

47. All driveways to be Modified CG-9B per DCSM.

48. All water lines shall be 8" ductile iron slip joint class 52, unless otherwise specified in City Details (ie. water line & connection notes). The minimum depth to the top of the pipe shall be 36" and a 10' minimum separation between sewer lines. Water main bends will require thrust blocks per city DCSM.

LEGEND

- CENTER LINE
- E/T — ELECTRIC/TELEPHONE
- UTILITY POLE
- W — WATER LINES
- S — SANITARY LINES
- SANITARY SEWER CLEANOUT
- STORM SYSTEM
- G — GAS LINES
- EXISTING PROPERTY LINE
- SETBACK LINE
- EASEMENT LINE
- PROPOSED ROAD/EOP
- EXISTING ROAD
- CURBING: CG-6
- CG-12/ASPHALT RAMP
- FIRE HYDRANT
- WATER METER
- PROPOSED FENCE
- EXISTING FENCE LINE
- LIGHT PAVEMENT AREA
- DISTURBED AREA
- EXISTING BUILDINGS — REMOVED



SITE DESIGN:
BLACKWELL ENGINEERING
ATTN: RICHARD BLACKWELL
566 EAST MARKET STREET
HARRISONBURG, VA 22801
540-432-9555

SURVEY:
DATED: 7/12/2005
BENNER & ASSOCIATES INC.
3061 SOUTH MAIN STREET
HARRISONBURG, VA 22801
540-434-0267

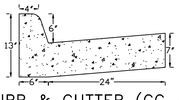
TOPO:
CITY FLOWN TOPO DATED: 3/26/1996
INVERTS, PROPERTY LINES AND SPOT GRADES VERIFIED BY BENNER & ASSOCIATES

DEVELOPER:
JAMES SHENK
941 SMITH AVENUE
HARRISONBURG, VA 22802
540-434-8050

SITE DATA:
15.387 ACRES
T.M. 48-G-19,-23,-24,-25,-26,-27
ZONE: R2; LAND USE: RESIDENTIAL
FEMA ZONE: X

DEVELOPMENT INFO:
15.387 ACRES ARE TO BE SUBDIVIDED INTO 24 LOTS -
SINGLE FAMILY DWELLINGS 16
DUPLEX DWELLINGS 8 (16)
TOTAL LOTS 32
TOTAL DWELLINGS 32
LOTS 1-13, 22-24 MAY NOT BE FURTHER SUBDIVIDED

ISO FIRE FLOW REQUIREMENTS:
1,000 GPM PER ISO GUIDELINES



CURB & GUTTER (CG-6)
S5101 N.T.S.

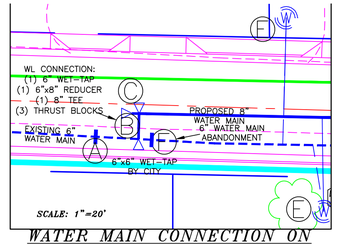
WATER LINE & CONNECTION NOTES

1. ALL WORK TO BE IN ACCORDANCE WITH ANSI/AWWA C651-92, SECTION 10. (PIPE SANITATION)

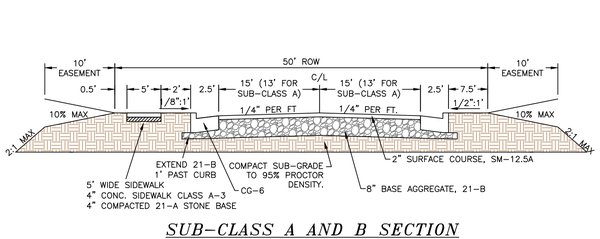
2. CONTRACTOR TO PROVIDE AND INSTALL 6"x6" TAPPING SLEEVE AND 6" TAPPING VALVE IN AN OSHA SAFE TRENCH, INCLUDING ALL TRAFFIC CONTROL. CITY FORCED WILL PRESSURE TEST THE SLEEVE IN PLACE AND TAP THE EXISTING WATER MAIN UPON PAYMENT OF APPLICABLE CITY CODE FEES.

3. SPECIFIED SEQUENCE FOR REQUIRED FOR WATER MAIN CONSTRUCTION AS FOLLOWS:
(A) ANCHOR COLLAR TO BE PLACED ON EXISTING 6" MAIN PER DCSM, CH.7, PG. 28. ALL EXISTING WATER SERVICE TO REMAIN ACTIVE DURING CONSTRUCTION.
(B) CONSTRUCT NEW LINE. CONNECTION TO EXISTING LINE BY UTILIZING A 6" WET-TAP, A 6" TO 8" ENLARGER, AND A 8" TEE.
(C) THRUST BLOCKS TO BE INSTALLED PER DCSM, CH.7, PG. 24 WHERE APPLICABLE.
(D) CONSTRUCTED WATER MAIN & NEW WATER LATERALS TO BE PRESSURIZED AND BACTERIOLOGICAL TESTED UP TO FIRST FIRE HYDRANT. AN ADDITIONAL 8" VALVE, ANCOR BLOCK, AND 2 SECTIONS OF PIPE TO BE PLACED ON WATER MAIN BEYOND FIRE HYDRANT.
(E) ONCE APPROVED, CONNECT NEW WATER SERVICE LATERAL TO EXISTING METERS FOR TAX PARCEL 49-(A)-1, 48-(G)-5, AND 48-(G)-28. THIS SERVICE WILL TIE INTO THE EXISTING METER.
(F) TYPICAL WATERMAIN ABANDONMENT TO BE PERFORMED ON EXISTING 6" MAIN PER DCSM, CH.7, PG. 70. THIS IS TO BE PLACED ON THE NORTH SIDE OF PROPOSED CONNECTION.

4. ADEQUATE TEST EXCAVATIONS WILL BE REQUIRED BY THE CONTRACTOR IN THE PRESENCE OF CITY UTILITY INSPECTOR PRIOR TO ANY CONSTRUCTION OF THE PROPOSED STORM SEWER. ANY DISCREPANCIES SHALL BE CONVEYED TO THE DESIGNING ENGINEER. CHANGES MADE TO THE APPROVED DESIGN WILL RESULT IN FURTHER REVIEW AND APPROVAL BY THE CITY OF HARRISONBURG PUBLIC UTILITIES DEPARTMENT.



WATER MAIN CONNECTION ON SOUTH SMITH AVE.



SUB-CLASS A AND B SECTION
NTS TYPE B USED

Date:	4/26/06
Scale:	1"=60'
Designed by:	RLB II
Drawn by:	RMT
Checked by:	RLB II

BLACKWELL ENGINEERING, PLC
566 East Market Street
Harrisonburg, Virginia 22801
PHONE: (540)432-9555 FAX: (540)434-7604
E-Mail: BE@BlackwellEngineering.com
PRINTED: 12-26-12

COMMONWEALTH OF VIRGINIA
RICHARD L. BLACKWELL, JR.
NO. 065742
PROFESSIONAL ENGINEER

Revision Dates
4/17/07 PER CITY
12/19/07 PER STORM
6/11/08 PER WL CONNECT
7/3/08 PER CITY

SITE AND UTILITY PLAN

SHENK SUBDIVISION
JAMES SHENK
941 SMITH AVENUE
HARRISONBURG, VA 22802

Drawing No. 2 of 7 Sheets

Job No. 1262