

Planning and Zoning Information

Owner/Applicant: Bryan Harnett
 Parcel I.D.: 07-069-045.000
 Address: Marshall Avenue, Williston
 Production Park Lot #26
 Area: 3.00 Acres (130,829 s.f.)
 Zoning: IZDW - Industrial Zoning District West
 Permit I.D.: DP 18-05

EXISTING ZONING REQUIREMENTS:
 (based on Town of Williston Unified Development Bylaw adopted June 1, 2009, last amended August 18, 2015)

Existing Zoning Designation = IZDW (Industrial Zoning District West)
 Frontage = 40 feet
 Maximum Building Height = 36 feet
 No Minimum Lot Size
 Building Setbacks:
 Minimum Setback from Road = 35 Feet
 Side Yard = 9'-50' Depending on Vegetation
 Rear Yard = 9'-50' Depending on Vegetation

Parking Requirements = 2 spaces per 1,000 s.f. for Vet Clinic = 2*(17,595 s.f./1,000 s.f.) = 35 parking spaces required per WDB 14

Proposed parking = 68 spaces (6 handicapped) with 18 additional parking spaces to be built in future if necessary. Currently BEVS uses 34 parking spaces at their existing 5,000 s.f. location. Proposed parking based on space needed for increased number of staff and more clients at a larger building.

VTE = 62, based on ITE 10th edition for Veterinary Clinic(LUC 640) = 3.53 per 1,000 s.f. = 3.53*(17,595 s.f./1,000 s.f.) = 62

VTE = 60, based on Traffic Impact Assessment by Lameroux & Dickinson performed in November 2017

EXISTING COVERAGE CONDITIONS:

Lot Area = 130,829 s.f.
 Lot is undeveloped.
 Total Coverage = 0 s.f.

PROPOSED COVERAGE CONDITIONS:

Building = 17,384 s.f. (heated envelope)
 Building Coverage = (17,384 s.f./130,829 s.f.)*100 = 13.7%

Front yard = 8,670 s.f.
 Front yard Coverage = (747 s.f./8,670 s.f.)*100 = 8.6%

Parking lot area = 34,082 s.f. (initial construction) + 4,971 s.f. (future parking) = 39,053 s.f.

Parking lot pavement area = 31,961 s.f. (initial construction) + 4,971 s.f. (future parking) = 36,932 s.f.

Open area in parking lot (open area is in initial construction only) = 2,121 s.f.
 % open in parking = 100*(2,121 s.f./36,932 s.f.) = 5.7%

Miscellaneous impervious surfaces: Sidewalks, trash enclosure, bike rack pad, generator pad, patio and entrance areas = 2,491 s.f.

Total coverage = (17,384 + 36,932 + 2,491) = 57,407 s.f.
 Total Lot Coverage = (57,407 s.f. /130,829 s.f.)*100 = 43.9%

Legend

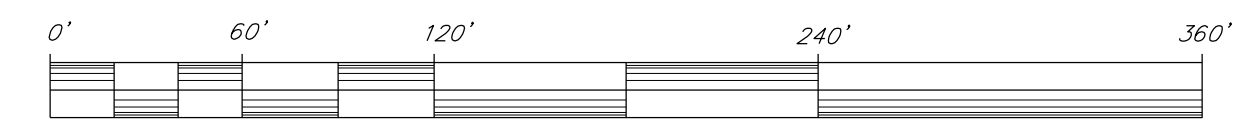
- Subject Property Line
- - - - - Approx. Property Line
- Existing Woods Line
- Existing Underground Power
- Existing Storm
- Existing Gas
- Existing Sewer
- Existing Water
- Existing Fence
- Existing Guardrail
- Existing Soil from VCGI
- Existing contour line
- - - - - Finish Grade Major Contour
- - - - - Finish Grade Minor Contour
- S — New Sewer Line
- ST — New Storm Line
- UGP — New Underground Power
- WV Existing Water Valve
- ⊕ Existing Drain Manhole
- ⊙ Existing Sewer Manhole
- ⊠ Existing Catch Basin
- ⊕ Existing Hydrant
- ⊙ Existing Shutoff
- ⊕ Existing Light Pole
- ⊙ New Sewer Manhole
- ⊕ New Drain Manhole

- Notes:**
- This plan has been prepared from a topographic survey performed in August 2017 by Krebs and Lansing Consulting Engineers.
 - This plan is in no way a boundary survey. Property lines are based on Town of Williston tax maps and plan entitled "Boundary Survey, Production Park Lot 26 and Lot 27" prepared by Krebs and Lansing Consulting Engineers, dated August 14, 1996.
 - Elevations are based on NAVD88 and horizontal coordinates are based on the NAD83, Vermont State Plane, US Survey Feet.
 - Utilities on this plan are based on physical evidence found in the field and plan entitled "Site Plan, Champlain Oil Company, Inc." prepared by Krebs and Lansing Consulting Engineers, dated January 4, 2010.

SOIL UNITS CALCULATION

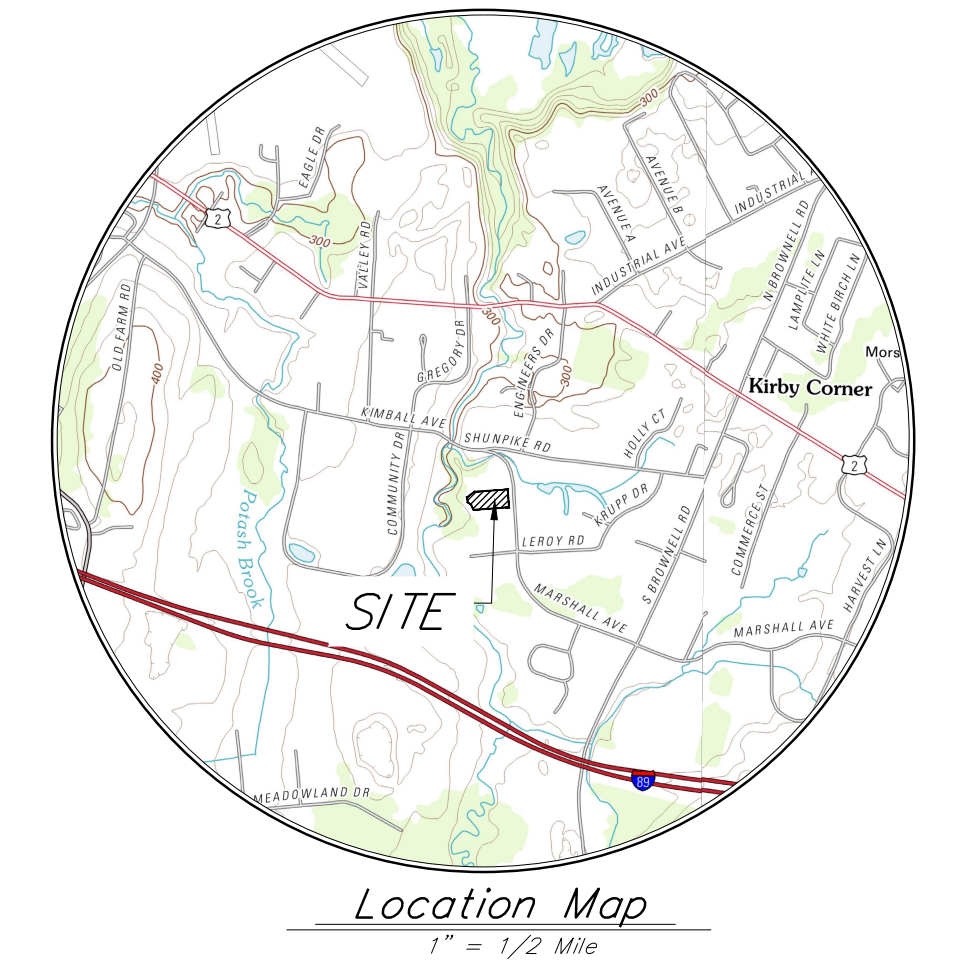
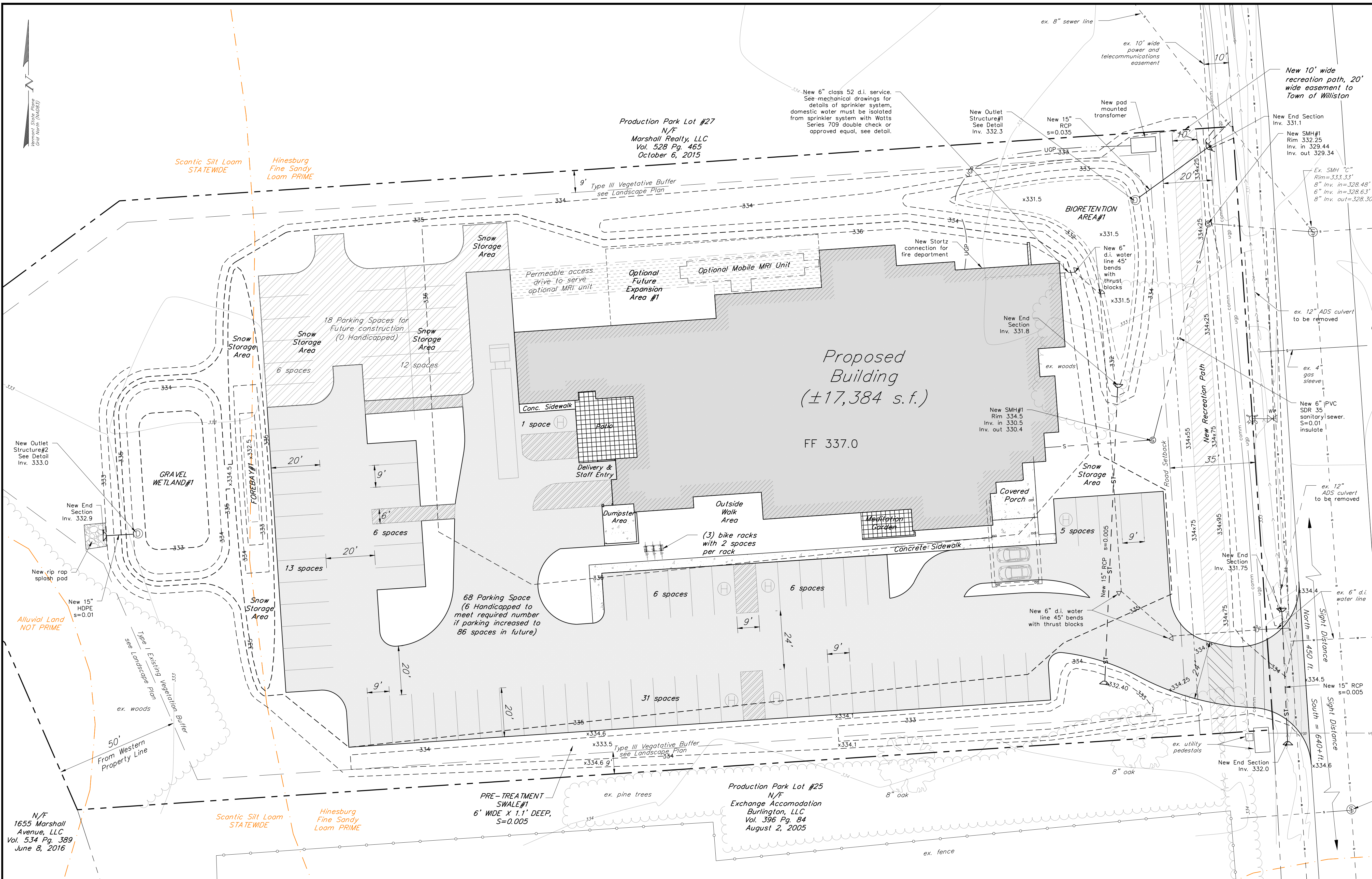
MAPPED SOIL UNITS ON SITE DESCRIBING TYPE OF SOIL, AGRICULTURAL SIGNIFICANCE, AND ACREAGE.

SOILS ON SITE	PRIME	AREA
Hinesburg Fine Sandy Loom (HnA)	YES	±2.32 Acres
Scantic Silt Loom (ScA)	STATEWIDE	±0.58 Acres
Alluvial Land (An)	NO	±0.10 Acres



BAR SCALE 1" = 60'

Date revised	Description	Checked	Date
Design	IAJ		
Drawn	JBC		
Checked	GTD		
Scale	1" = 60'		
Date	12/1/2017		
Project	17245	Marshall Avenue	Williston, Vermont
<p align="center">Overall Plan</p> <p align="center">BEVS</p> <p align="center">Lot 26-Production Park</p>			<p align="center">KREBS & LANSING Consulting Engineers, Inc. 164 Main Street, Colchester, Vermont 05446</p>
			C-1



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 Proposed parking = 68 spaces (6 handicapped) with 18 additional parking spaces to be built in future if necessary.
 Currently BEVS uses 34 parking spaces at their existing 5,000 s.f. location. It is estimated that this new facility could double the activity. Therefore the proposed parking is based on twice the existing facilities parking. If further parking is required in the future the 18 additional spaces could be added.

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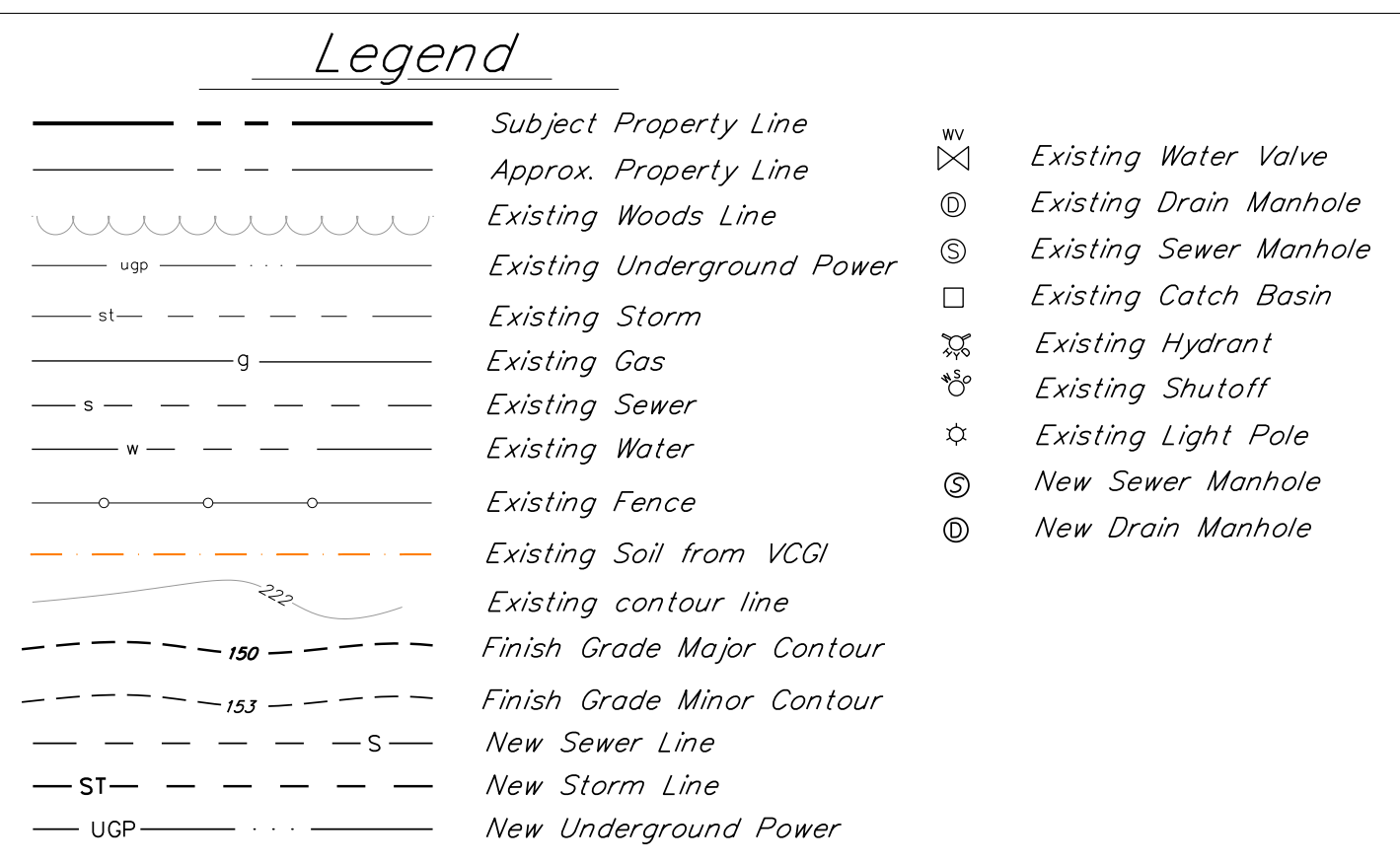
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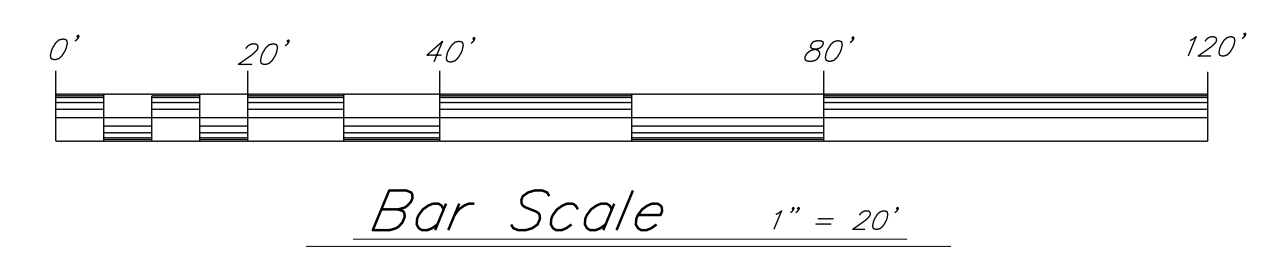
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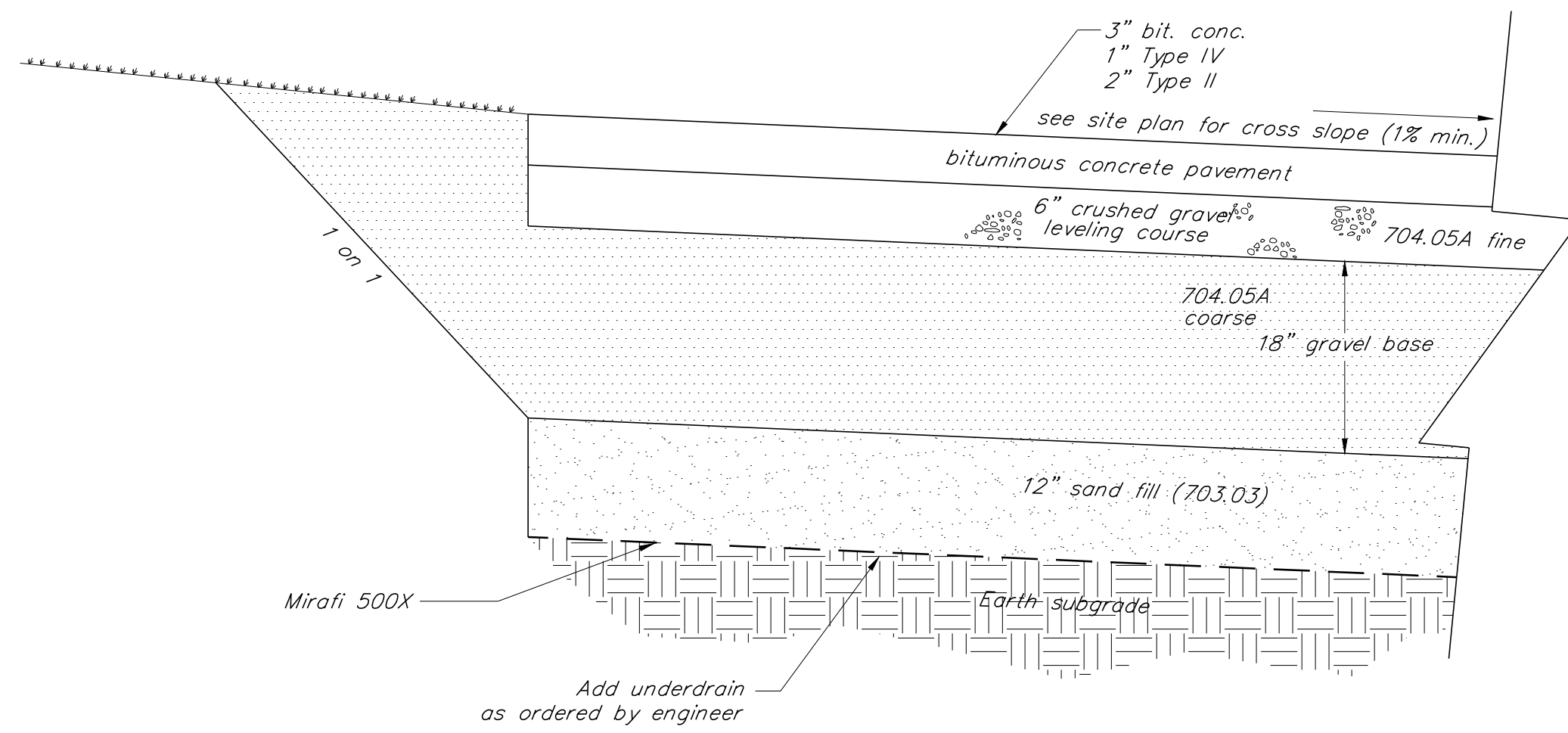


Date revised	Description	Checked	Date
Design	IAJ		
Drawn	JBC		
Checked	GTD		
Scale	1" = 20'		
Date	12/1/2017		
Project	17245 Marshall Avenue		Williston, Vermont

Site Plan
BEVS
Lot 26-Production Park

KREBS & LANSING Consulting Engineers, Inc.
 164 Main Street, Colchester, Vermont 05446

FW Name:
 Drawing Size: **C-2**



Typical Pavement Cross Section

N.T.S.

Road Construction Notes

(All references to road shall apply to walks and parking areas as well.)

- New road shall be constructed to the line and grade shown on the drawings. The road and utility locations shall be as typically detailed unless otherwise shown.
- All road and parking construction shall be completed in accordance with the Vermont Agency of Transportation "Standard Specifications for Construction" 2006, hereafter called Vermont Highway Specifications, specifications found on these plans, and project specifications. In case of conflict, the more stringent specification shall apply as determined by the Engineer.
- The Contractor shall follow Vermont Highway Specifications (2006) Section 203.11 for placing and spreading embankments.
- Fill material for road embankment shall meet Note #13 below and be approved by the Engineer. Fill shall be placed in 12" lifts, wetted and compacted with satisfactory compaction equipment to 95% of maximum density (Standard Proctor).
- Road in fill sections shall be placed and compacted a minimum of 3 feet above top of any utility to be installed before trench is excavated for pipe placement. In trenches and cut sections, the Contractor shall provide all necessary sheeting, shoring and bracing to maintain compliance with all OSHA/VOSHA regulations.
- Methods for construction of subgrade shall conform to Vermont Highway Specifications (2006) 203.12 or as determined by the Engineer.
- Dense graded crushed stone, crushed gravel and sand borrow shall not be contaminated by work. Construction traffic shall not travel over exposed areas of this material. Any subgrade or subbase disturbed by Contractor, or rendered unsuitable by construction machinery, shall be removed and replaced with approved granular backfill at the Contractor's expense. The subgrade shall be compacted to attain at least 95% of the maximum density (Standard Proctor) before placing road or embankment materials.
- The Owner shall pay for on site soils testing (compaction, sieve, and proctor). At a minimum, 2 samples of all aggregate material brought to site shall be tested.
- Sand borrow and cushion shall conform to Vermont Highway Specifications (2006) 703.03. Granular borrow shall conform to the Vermont Highway Specifications 703.04.
- Gravel subbase for pavement shall conform to Vermont Highway Specifications (2006) 704.05 coarse, crushed gravel, or 704.06 dense graded crushed stone as shown on cross-section.
- Leveling course shall conform to Vermont Highway Specifications (2006) 704.05, fine grading. Shoulders shall conform to Section 704.12, Aggregate for Shoulders.
- Bituminous concrete pavement shall conform to Vermont Highway Specifications (2006) Section 404 and 406. Binder course shall be Type I + II, and finish wearing course shall be Type III, IV, or as detailed.

13. Embankment fill for all impervious areas, EXCLUDING BUILDINGS, shall be a sieve specification as follows:

Sieve	% Finer
4"	100
2"	25-100
#4	60-100
#200	30 maximum

All concrete shall meet section 501 of the State of Vermont standard specifications for Class A concrete and shall have a 28 day compressive strength of 4,000 psi

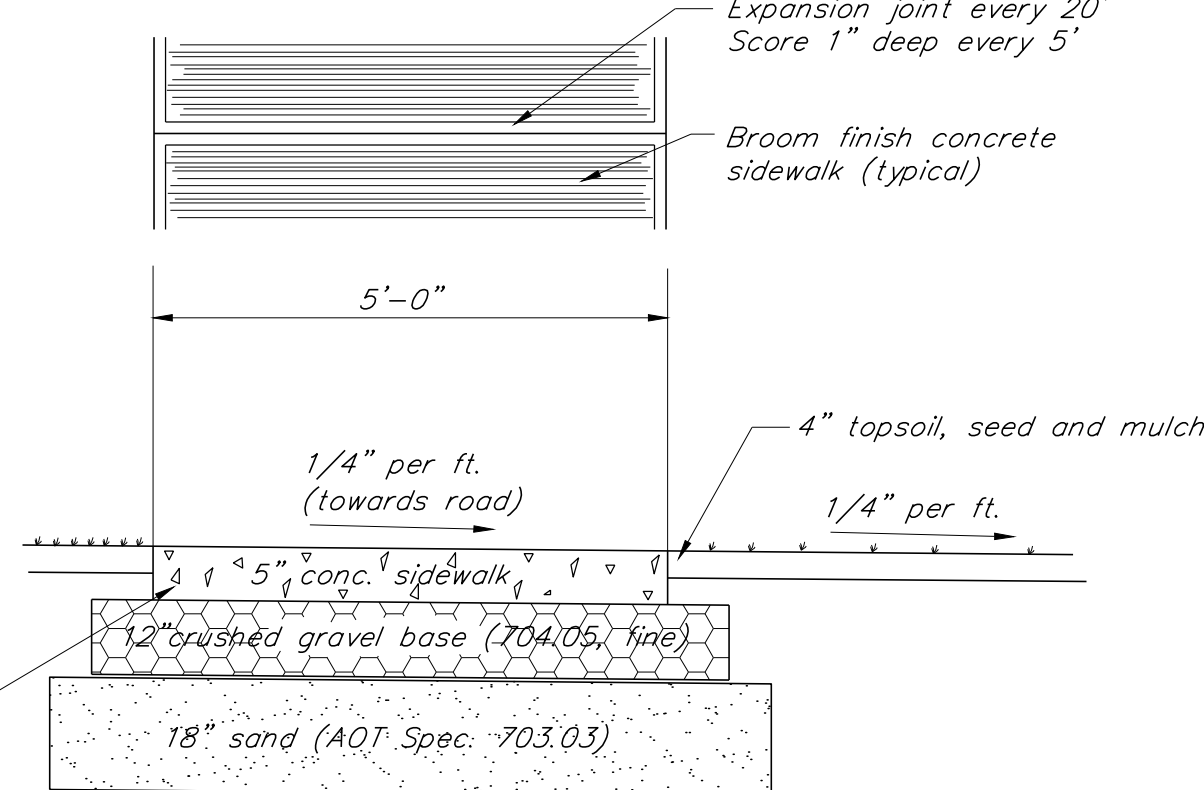
Provide expansion joint where sidewalk is against curb.

Use anti-spalling to concrete curb and sidewalk as specified in Public Works Specifications.

Use 4000 psi concrete for sidewalks and curbs

Expansion joint every 20' Score 1" deep every 5'

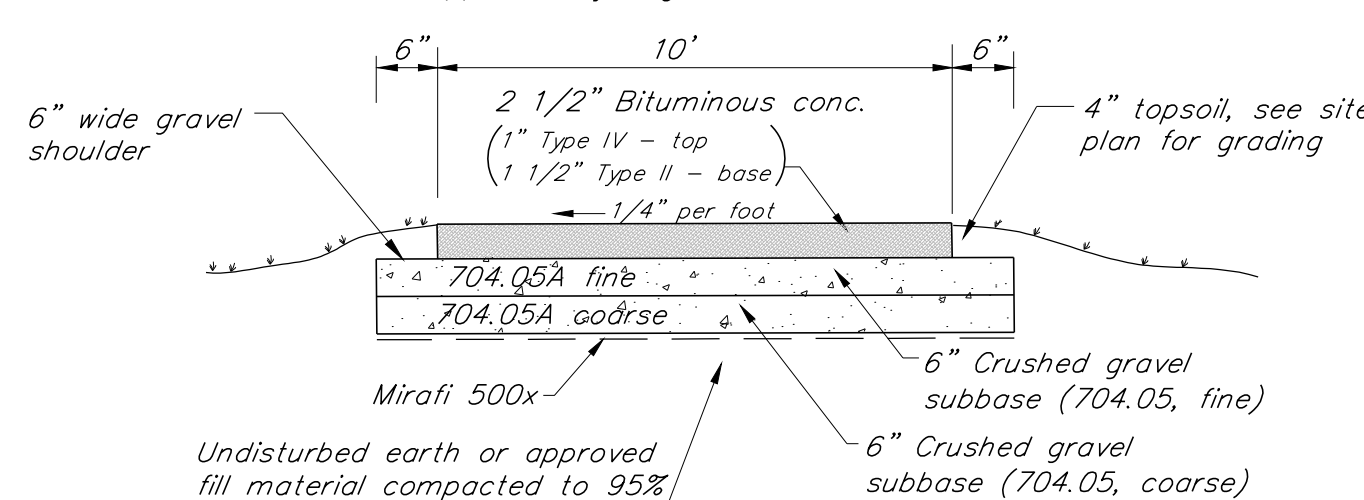
Broom finish concrete sidewalk (typical)



Typical Concrete Sidewalk Detail

N.T.S.

Mechanically spread and compact bituminous concrete with equipment approved by Engineer.



New Bituminous Recreation Path Detail

N.T.S.

Construction Notes

1. The Contractor will be responsible for all construction of water main, storm and sanitary sewer systems as shown on the plans. He will be responsible for all necessary adapters, fittings, etc. to make connections to the existing and proposed utilities. The Contractor shall be responsible for all work shown or implied on the plans and/or referenced in the specifications and permits. The Contractor shall submit for approval by the Engineer all types of materials and products used.

Water Main

- The pipe for water main shall be ductile iron class 52 manufactured in accordance with AWWA C151-76. All pipe shall have push on type joints. All fittings, valves, etc. shall have mechanical joints. Pipe fittings shall be manufactured by Clow, US Pipe, Johns-Manville, or approved equal.
- All pipe shall be installed in accordance w/AWWA C-600. The pipe shall be kept free of foreign matter and debris during installation. When the process of pipe laying has stopped any open ends of pipe shall be plugged. There shall be a minimum of 6'-0" cover over all pipe and service lines. Any pipe deflection shall not exceed fifty (50) percent of recommended manufacturer's maximum deflection. Backfill materials and procedures shall be as detailed on the drawings. The Contractor shall be responsible for any and all sheeting and/or shoring necessary to comply w/OSHA - VOSHA regulations.
- The testing of the water main shall consist of the testing of all installed pipe, services, hydrants, etc. The testing shall consist of a pressure test followed by a leakage test. All testing shall be done with potable water and in the presence of the Engineer. The pressure test consists of maintaining a minimum internal pipe pressure of two hundred (200) pounds per square inch for two (2) hours. Failure to hold the pressure (+/- 5 psi) for the specified time constitutes failure of the test for the particular section of pipe. The leakage test shall be conducted for one (1) hour. The time for the leakage test may be included with the time of the pressure test. During the leakage test the quantity of water necessary to maintain the testing pressure of the system shall be measured. The leakage shall not exceed the allowable values as shown in table 6 AWWA C-600. Failure of any test section will necessitate repair and/or replacement of the failed section. Working pressure and test pressure shall be determined jointly by Engineer and local approval agency.
- Chlorination of the system shall be accomplished after the water main has been successfully pressure tested and thoroughly flushed. Disinfection shall be in accordance w/AWWA C-601. The method of disinfection shall be approved by the Engineer and only after samples of water from the flushed disinfected main shows no evidence of bacteriological contamination. Use 50 mg/l for 24 hours. The concentration must remain above 25 mg/l. Tablet disinfection is not acceptable.
- Two water samples, in two different locations, shall be taken by the Engineer and sent to the State for testing prior to water main being placed in service.

Sanitary & Storm Mains

- The pipe for sanitary sewer and storm shall be PVC gravity sewer pipe SDR 35 (ASTM D 3034) with rubber sealing rings. All pipe shall be laid to the line and grade shown on the plans.
- The installed sanitary sewer pipe shall be low pressure air tested in the presence of the Engineer. After pipe cleaning, the pipe section (manhole to manhole) shall be tested according to the following procedures: An internal pipe pressure of 4 pounds per square inch greater than any back pressure due to a water table shall be created. A minimum of two (2) minutes shall be allowed for temperature stabilization. The pipe section shall be considered acceptable when, tested at a pressure of 3 pounds per square inch greater than any back pressure, the section does not lose air at a rate greater than 0.0030 cfm/s.i. of internal pipe area.
- Sewer mains must have a mandrel pulled through and lamped by the Engineer and witnessed by the Public Works Department.

Separation of Water and /or Sanitary & Storm Mains

- No water main shall be closer than ten (10) feet to any sanitary sewer, storm sewer or sanitary manhole, and five (5) feet to any catch basin. Provide minimum of 18" vertical separation between water main and storm/sanitary sewer.

Testing and Notes

All utilities and roadways shall be designed and constructed in accordance to the Williston Public Works Standard Specifications, WPWSS. All testing in section of utilities shall conform to WPWSS, and shall have staff from the Public Works Department present to witness testing.

In addition to the above requirements, all water lines and sewer lines and manholes shall be thoroughly tested by the Contractor in accordance with the current edition of the Environmental Protection Rules.

Note: All construction shall be accomplished in accordance with the standards set forth in the latest edition of the public works specification of the Town of Williston and referenced specifications, in the case of conflict, the more stringent specification shall apply

Contractor shall keep a log book of at least three swing ties to service locations and any points of deflection or water main fittings. Books shall be turned over to the Owner upon acceptance of work. Elevations to the top of services shall also be recorded.

Erosion Control and Construction Sequence

- The purposes and sequencing of erosion control shall be discussed with and approved by the Engineer and the Town of Williston prior to any clearing, grubbing, stripping or construction of any kind.
- All erosion control shall be placed as shown on the drawings or as ordered by the Engineer. All erosion control measures shall be, at a minimum, inspected weekly and maintained to fulfill the intent discussed above. The Contractor shall maintain the erosion control measures until the Engineer is satisfied that permanent ground cover has been established and that further measures are not required.
- When erosion control measures are deemed no longer necessary, all materials detained including silts and construction debris shall be collected and disposed of in a manner acceptable to the Engineer and the Town of Williston.
- If highly erodible soils are encountered the Contractor may be required to provide jute matting, gabion or rivet mattresses, rip rap or other measures as necessary to prevent erosion. The Contractor shall stockpile hay bales to protect, at a minimum, all work in progress. All exposed embankments shall be topsoiled, seeded and mulched as soon as possible after construction.
- The Contractor shall use water and/or calcium chloride for dust control. The Contractor shall also sweep all roads as required to maintain dust control.

Construction Notes

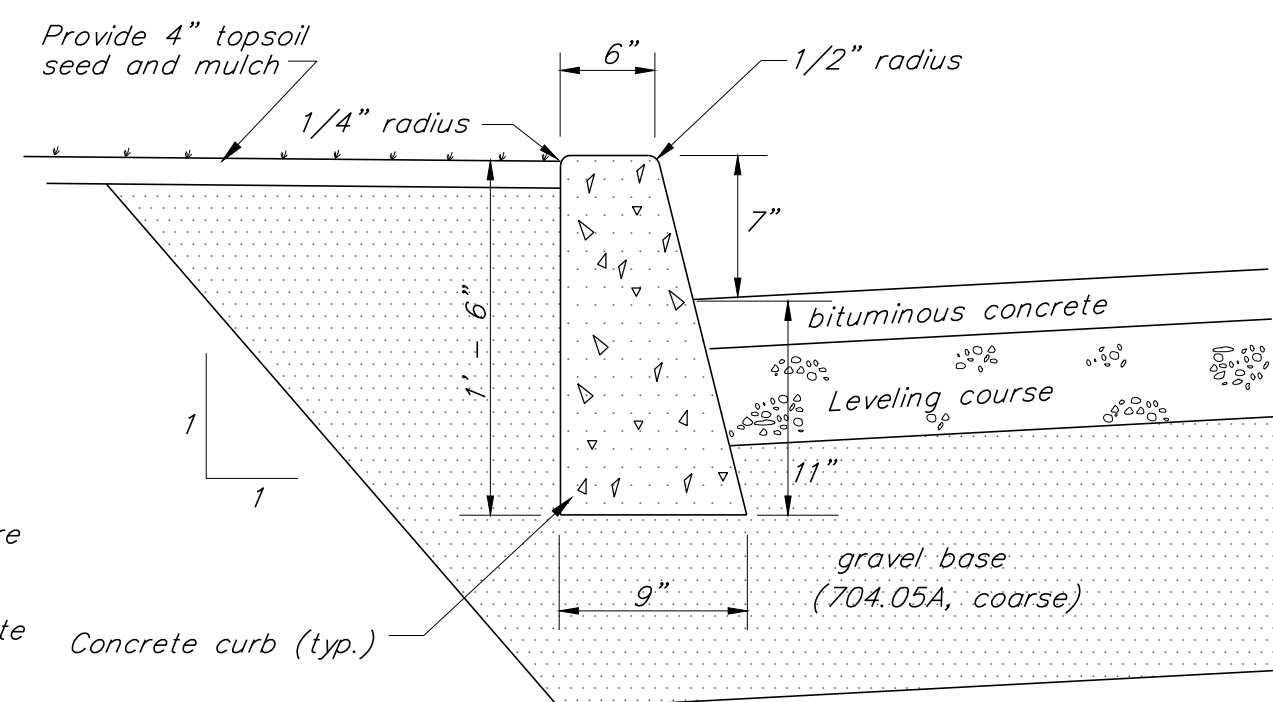
- The methods and materials of construction shall conform to the latest standards of the State of Vermont and Town of Williston, all work shall be in conformance with all permits and approvals issued for the project. In case of conflict, the more stringent specification shall apply as directed by Engineer. All work shall be done in a workmanlike manner and completed in the time specified by Owner.
- The Contractor shall be responsible for all work and materials shown and required to make the job complete. These drawings do not show every fitting or appurtenance. Materials shall be as specified on the drawings. Manufacturer's product specifications shall be submitted for all materials to the Engineer for approval prior to installation.
- The location and size of existing underground utilities is not warranted to be exact or complete. The Contractor shall field locate all utilities and shall contact the affected utility company, the Engineer and the Town of Williston prior to making any hook ups. The Contractor shall be solely responsible for all existing utilities and their uninterrupted services. All off-site backfill, sheeting and shoring, dewatering, clearing and grubbing, erosion control, dust control, traffic control, grading, and all incidentals shall be included as part of the required work.
- Repair of all disturbed areas, grading, seeding, mulching, repair of roads and curbs, paving, and other incidentals are included as part of the required work. All disturbed areas shall be loamed and mulched until permanent ground cover is established.
- The Contractor shall verify all temporary bench marks before use.
- The workmen and public shall be protected by the Contractor from any and all hazards connected with the construction work. Open trenches, materials, or equipment within the working limits are to be guarded by the use of adequate barricades or flagmen. All barricades left in position overnight are to be properly lighted. Kerosene pots are not acceptable. When work narrows the usable pavement, flagmen shall be employed to aid the flow of traffic so that there will be no undue delays. The Contractor shall be held responsible for the safety of all workmen and the general public and all damages to property occurring from or upon the work occasioned by negligence or otherwise growing out of a failure on the part of the Contractor to protect persons or property from hazards of open trenches, materials, or equipment at any time of the day or night within the working area. All work shall be in conformance to OSHA regulations, Title 19, Parts 1926.651 and 1926.652, and applicable to VOSHA regulations.
- The Contractor shall verify all utility intersections and contact Engineer and Owner with conflicts.
- The Contractor shall call, Dig Safe prior to any excavation.
- The Contractor shall coordinate final location and inverts for water, sewer, and storm building connections with the Architect, Structural Engineer, and Mechanical Engineer.
- All new sanitary and storm pipes shall be laid with a laser to elevation and slope as shown on the plans.

NOTE:

All utilities and roadways shall be designed and constructed in accordance to the Williston Public Works Standard Specifications, WPWSS. All testing in section of utilities shall conform to WPWSS, and shall have staff from the Public Works Department present to witness testing.

Concrete Curb

- Broom finish concrete
- All joints to be tool finished
- Expansion joints every 20'
- Score 1/3 total depth at 10' intervals
- Use 3500 psi concrete
- Provide expansion joint where sidewalk is against curb.
- Use anti-spalling on concrete curb.



Typical Concrete Curb Detail

N.T.S.

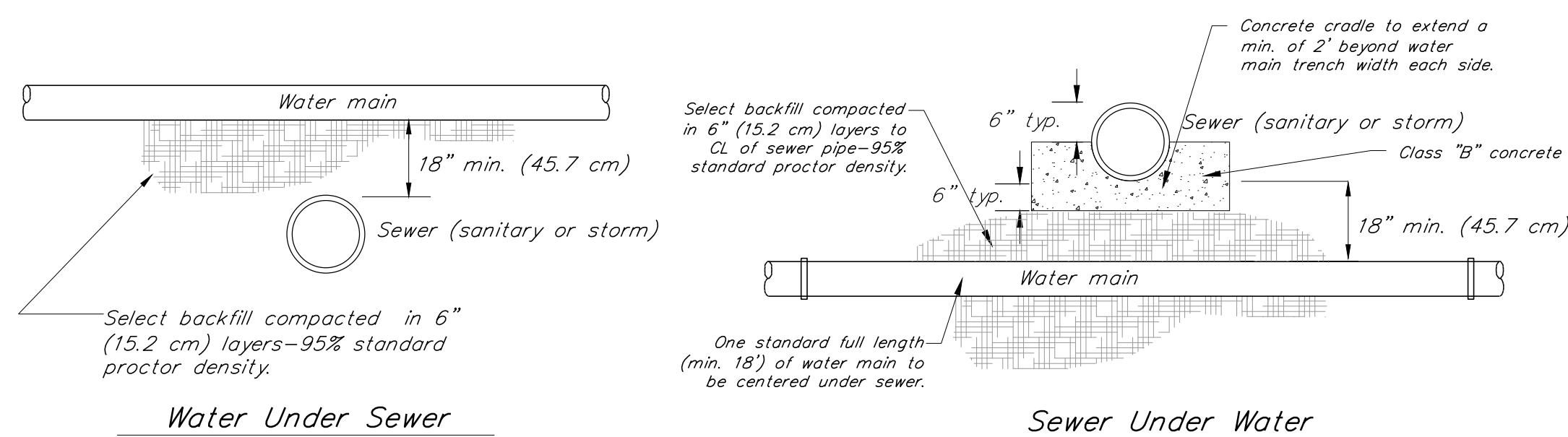
Concrete curb to be used on inside radius of cul de sac only.

Date revised	Description	Checked	Date
Design	IAJ		
Drawn	IAJ		
Checked			
Scale	n.t.s.		
Date	12/1/2017		
Project	17245	Marshall Avenue	Williston, Vermont
KREBS & LANSING Consulting Engineers, Inc. 164 Main Street, Colchester, Vermont 05446			D-1

NOTES:

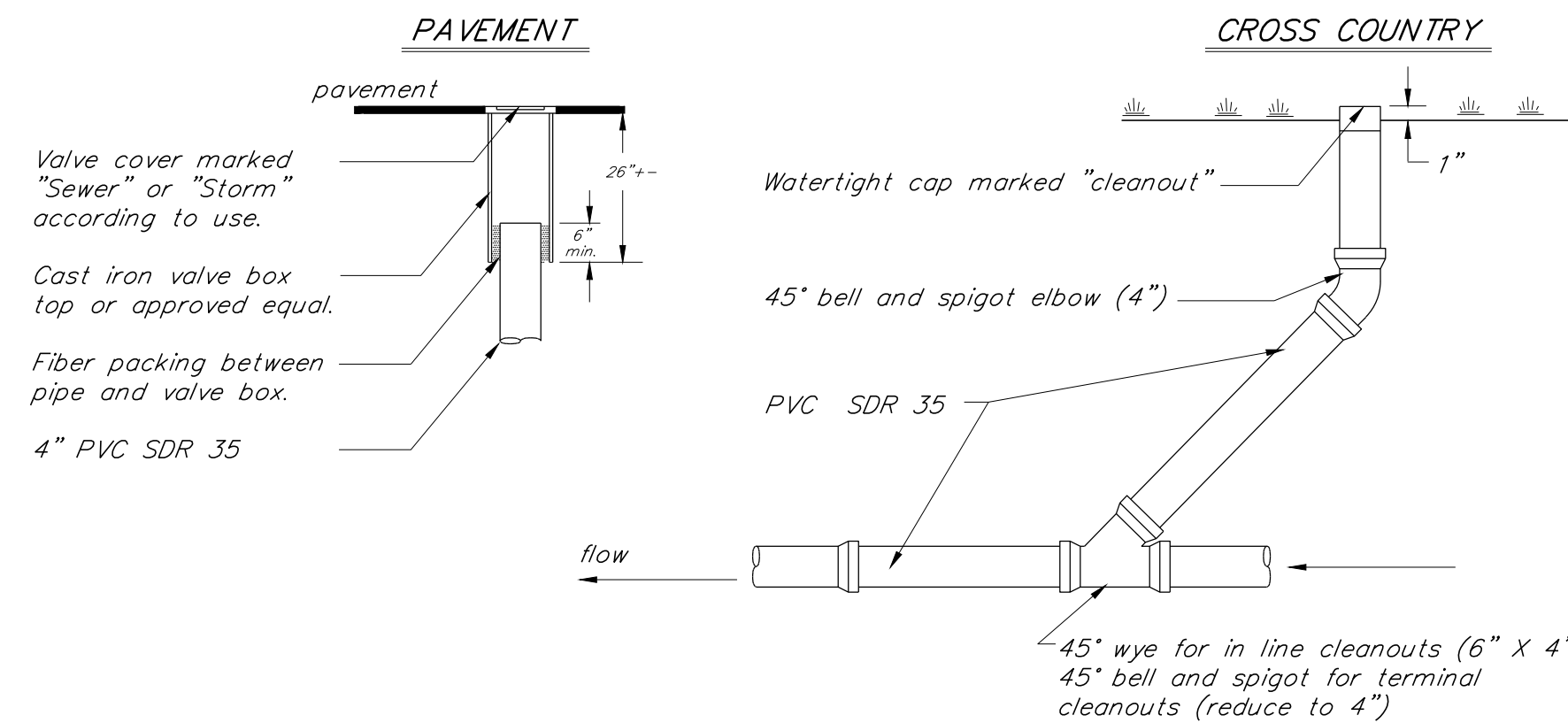
1. The location of sewer mains in relation to water mains shall be in accordance with the "Recommended Standards for Sewage Works" so-called Ten State Standards and Water Supply Rules.
2. Sewers shall be laid at least 10 feet (3.0 m) horizontally from any existing or proposed water main. The distance shall be measured edge to edge. If this distance cannot be obtained, then the pipes shall be installed according to EPR, Chapter 1, Appendix 1A, 11a.
3. 18" (45.7 cm) separation shall be maintained whether water is over or under sewer. If this distance cannot be obtained, then the pipes shall be installed according to EPR Chapter 1, 11b.

Sewers crossing watermains shall be laid to provide a minimum vertical distance of 18" between pipes. Sewer joints will be equidistant and as far as possible from the watermain joints. When it is impossible to obtain proper separation, the sewer pipe shall be designed and constructed equal to water pipe and shall be pressure tested to assure watertightness prior to backfilling.



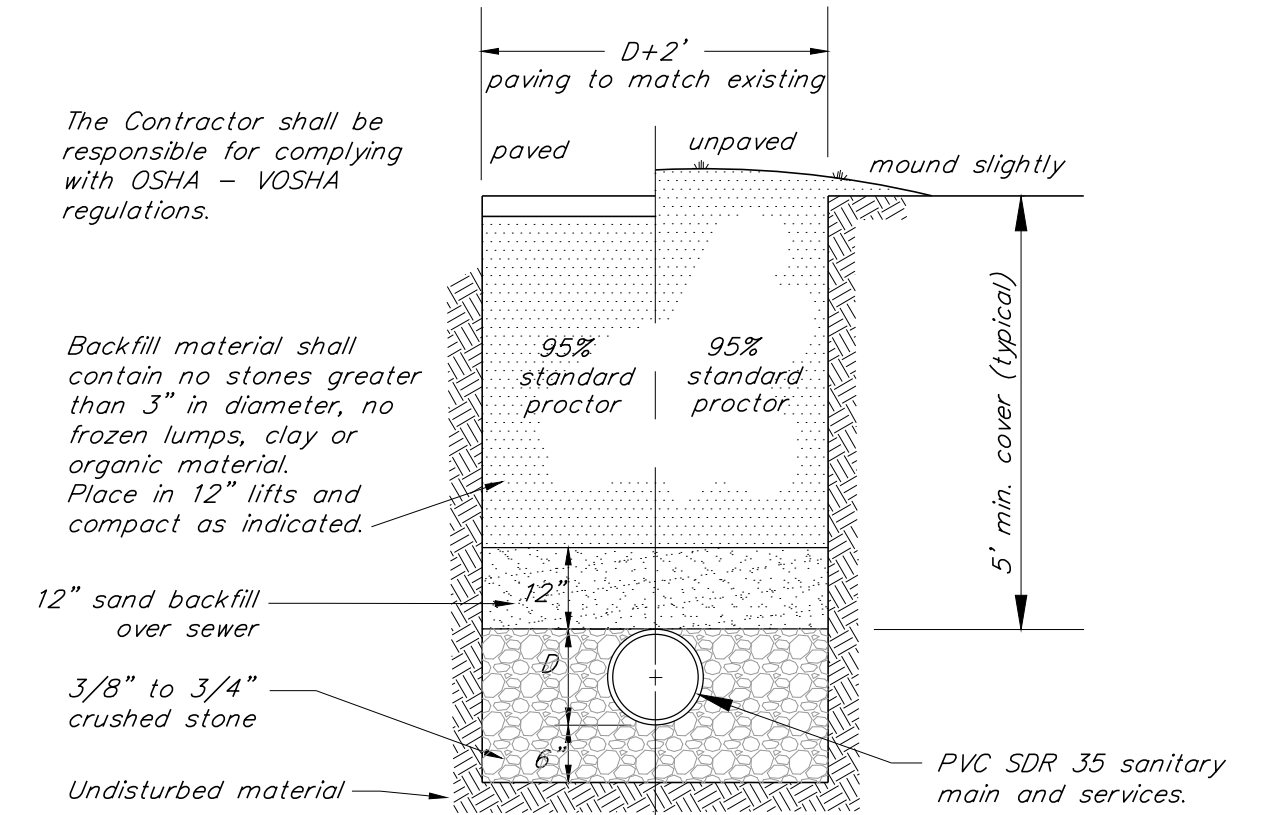
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Sanitary / Storm Cleanout Detail

N.T.S.



Typical Sanitary Trench Details

N.T.S.

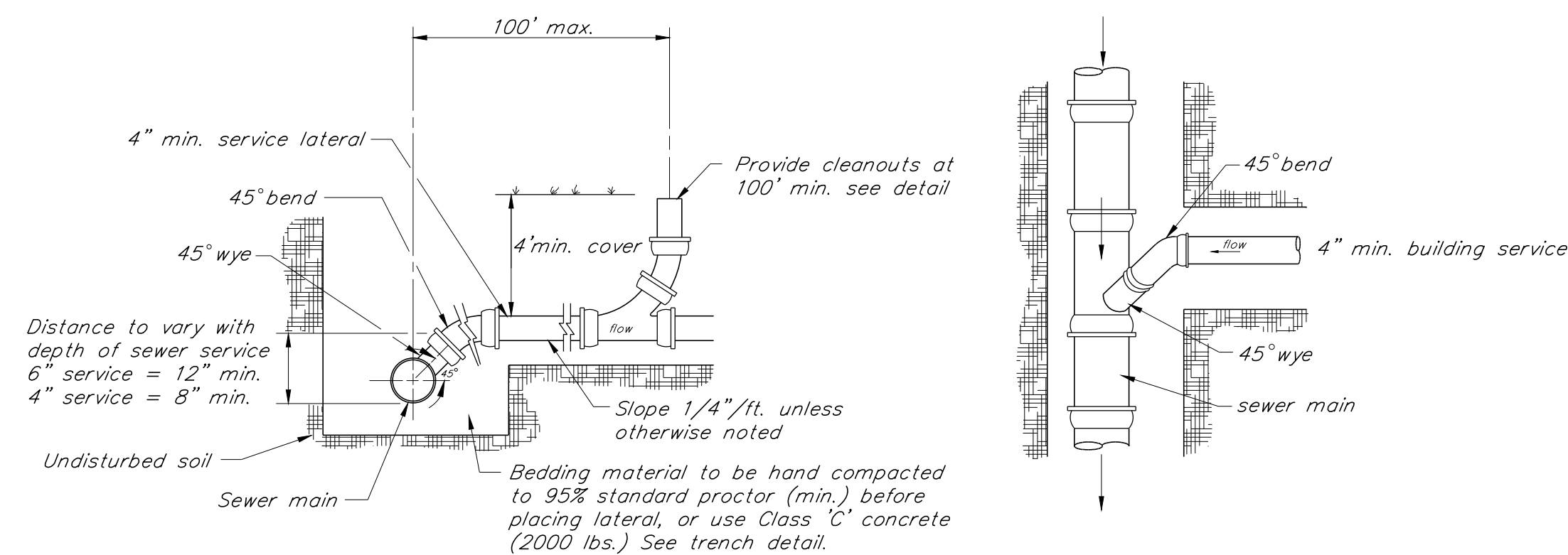
Crossings:

Sewers crossing water mains shall be laid beneath the water main with at least 18 inches vertical clearance between the outside of the sewer and the outside of the water main. When it is possible to maintain the 18" vertical separation:

- 1.) the crossing shall be arranged so that one full length of sewer is centered above or below the water line with sewer joints as far as possible from water joints;
- 2.) the sewer pipe must be constructed to water main standards for a minimum distance of 20 feet either side of the crossing or a total of three pipe lengths, whichever is greater;
- 3.) the section constructed to water standards must be pressure tested to maintain 50 psi for 15 minutes without leakage prior to backfilling beyond one foot above the pipe to assure water tightness;
- 4.) where a water main crosses under a sewer, adequate structural support shall be provided for the sewer to prevent damage to the water main.

Sewer / Water Separation Detail

N.T.S.

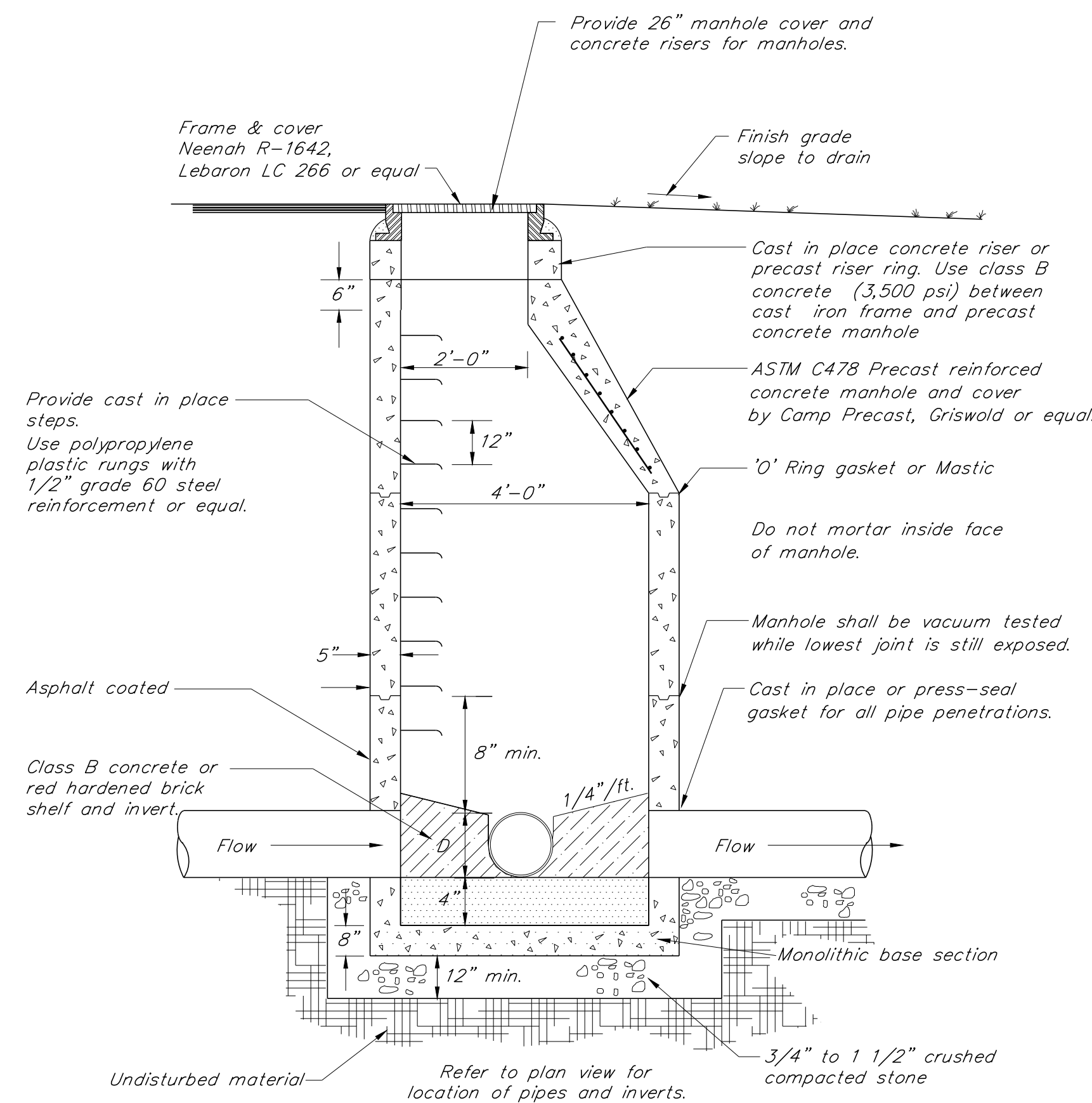


Section

Plan

Building Service Connection

N.T.S.



Typical Precast Manhole

N.T.S.

Date revised	Description	Checked	Date
Design	IAJ		
Drawn	IAJ		
Checked			
Scale	n.t.s.		
Date	12/1/2017		
Project	17245		

Civil Details

BEVS

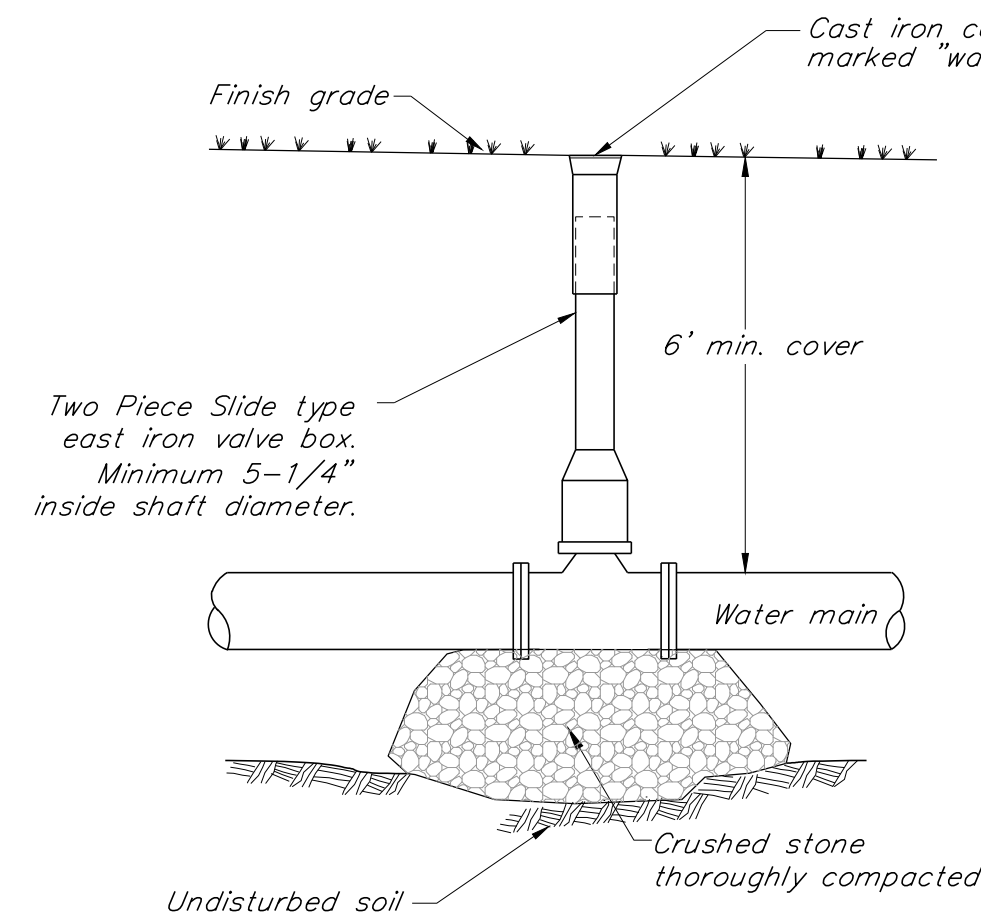
Lot 26-Production Park

DP-18-05

<p>KREBS & LANSING Consulting Engineers, Inc.</p> <p>164 Main Street, Colchester, Vermont 05446</p>	<p>Williston, Vermont</p> <p>D-2</p>
---------------------------------------------------------------------------------------------------------	--------------------------------------

Gate valves shall be A.W.W.A. C 509 Standard Gate Valves with mechanical joints of sizes as required on the plans. All valves shall be of cast or ductile iron body, parallel brass seats, non-rising stem, inside screw, resilient wedge construction with "O" Ring Stem Seals. All valves to be equipped with a valve box for a minimum of 6 feet (6') of cover material. The gate valves shall open counterclockwise and be designed with a 250 psi standard working pressure rating.

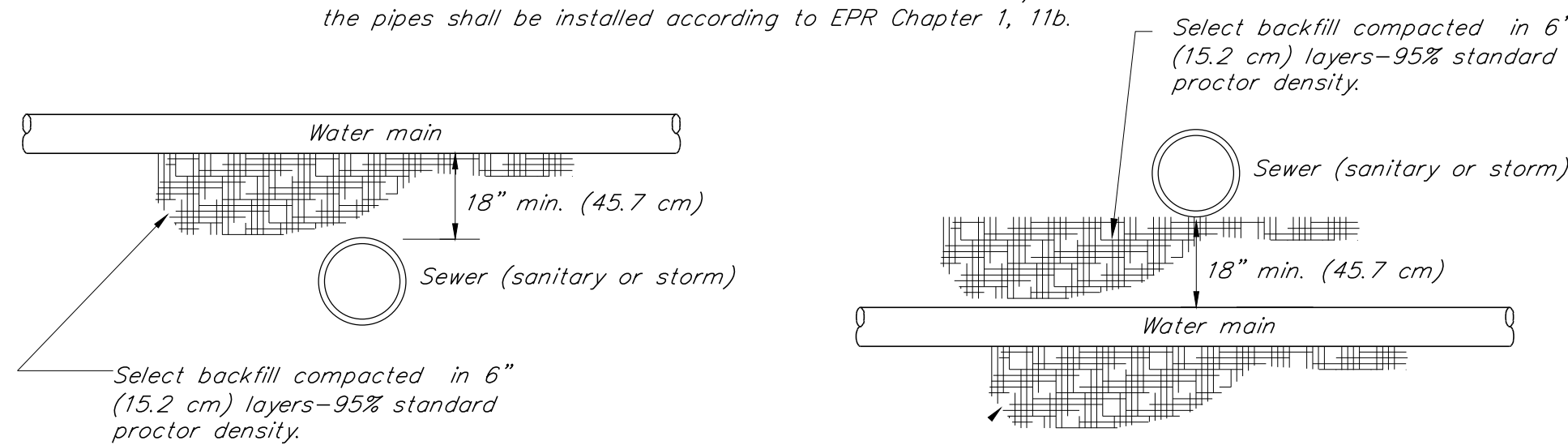
Gate valve shall be made from corrosion resistant materials, and all valve bolts, studs and nuts shall be made from corrosion resistant materials.



Resilient-Seated Typical Gate Valve
N.T.S.

NOTES:

- The location of sewer mains in relation to water mains shall be in accordance with the "Recommended Standards for Sewage Works" so-called Ten State Standards and Water Supply Rules.
- Sewers shall be laid at least 10 feet (3.0 m) horizontally from any existing or proposed water main. The distance shall be measured edge to edge. If this distance cannot be obtained, then the pipes shall be installed according to EPR, Chapter 1, Appendix 1A, 11a.
- 18" (45.7 cm) separation shall be maintained whether water is over or under sewer. If this distance cannot be obtained, then the pipes shall be installed according to EPR Chapter 1, 11b.



Crossings:

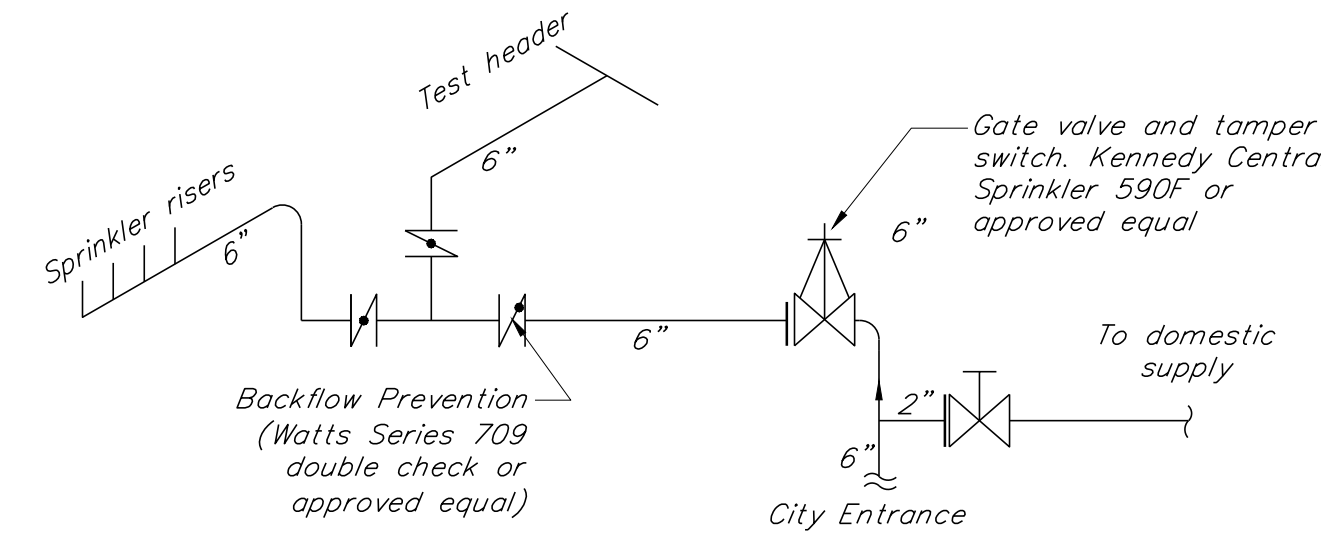
Sewers crossing water mains shall be laid beneath the water main with at least 18 inches vertical clearance between the outside of the sewer and the outside of the water main. When it is possible to maintain the 18" vertical separation:

- the crossing shall be arranged so that one full length of sewer is centered above or below the water line with sewer joints as far as possible from water joints;
- the sewer pipe must be constructed to water main standards for a minimum distance of 20 feet either side of the crossing or a total of three pipe lengths, whichever is greater;
- the section constructed to water standards must be pressure tested to maintain 50 psi for 15 minutes without leakage prior to backfilling beyond one foot above the pipe to assure water tightness;
- where a water main crosses under a sewer, adequate structural support shall be provided for the sewer to prevent damage to the water main.

Sewer / Water Separation Detail
N.T.S.

NOTE:

All utilities and roadways shall be designed and constructed in accordance to the Williston Public Works Standard Specifications, WPWSS. All testing in section of utilities shall conform to WPWSS, and shall have staff from the Public Works Department present to witness testing.

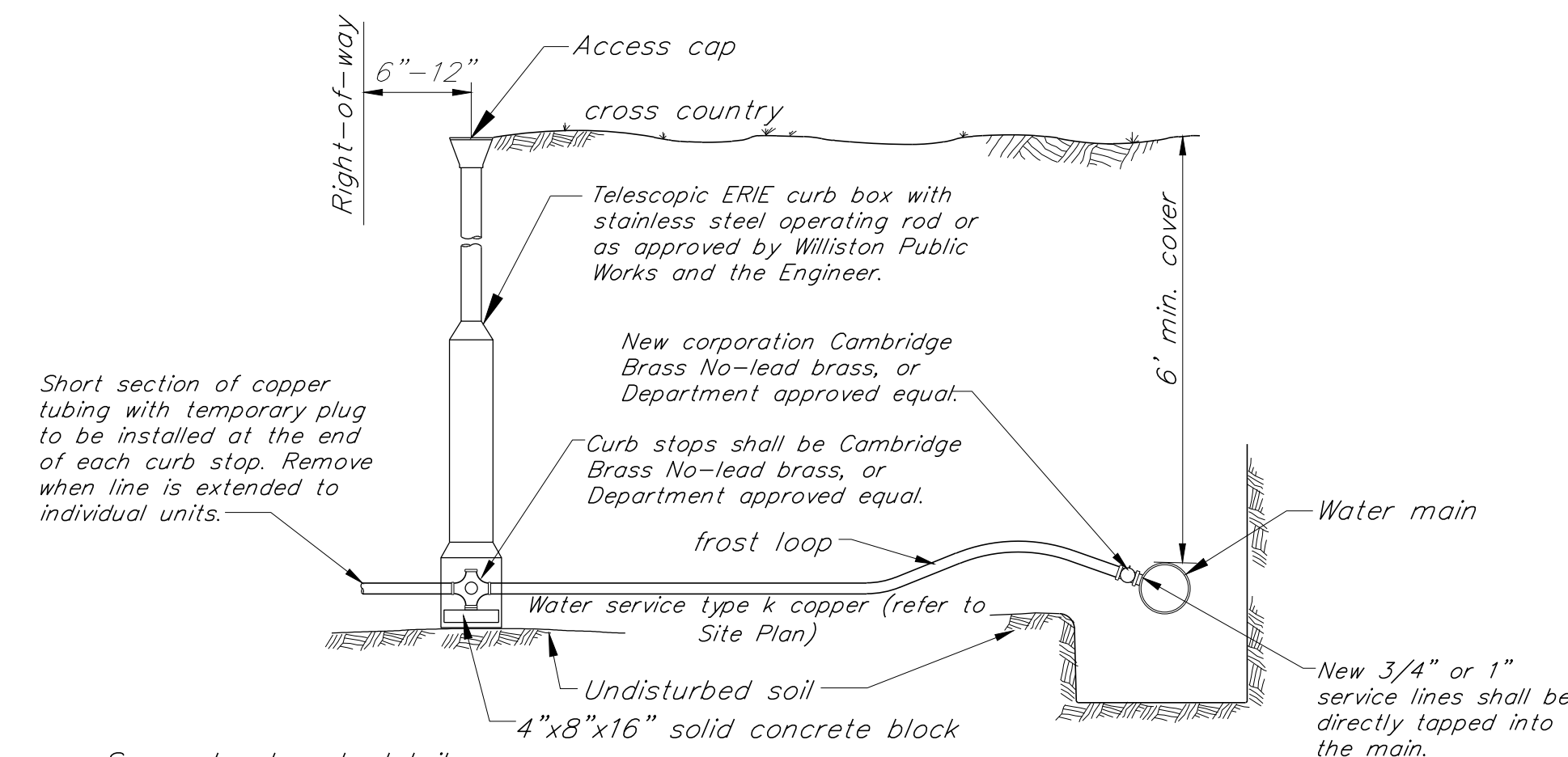


See mechanical drawings for details of sprinkler system, domestic water must be isolated from sprinkler system with Watts Series 709 double check or approved equal.

Backflow Preventer Schematic
N.T.S.

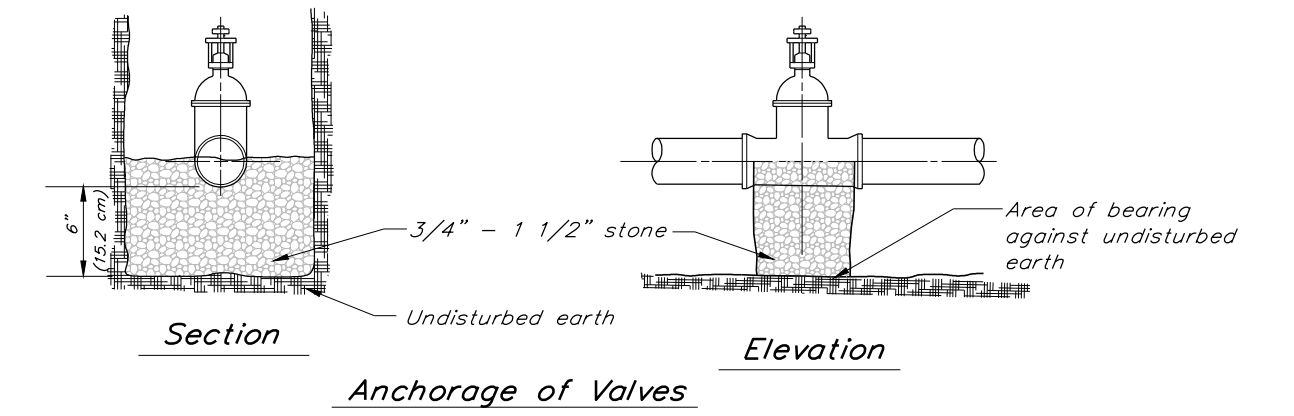
NOTE:

- Tap may be made directly to ductile iron pipe.
- Tapping saddles shall be Teflon or Epoxy coated with stainless steel straps, bolts and nuts.
- All brass unions and adapters shall be Cambridge or approved equal.
- Submit shop drawings to Engineer for all components of the water system.
- If possible locate curb box in grassed area. If not in grassed area use gate valve box tops and set flush to grade.



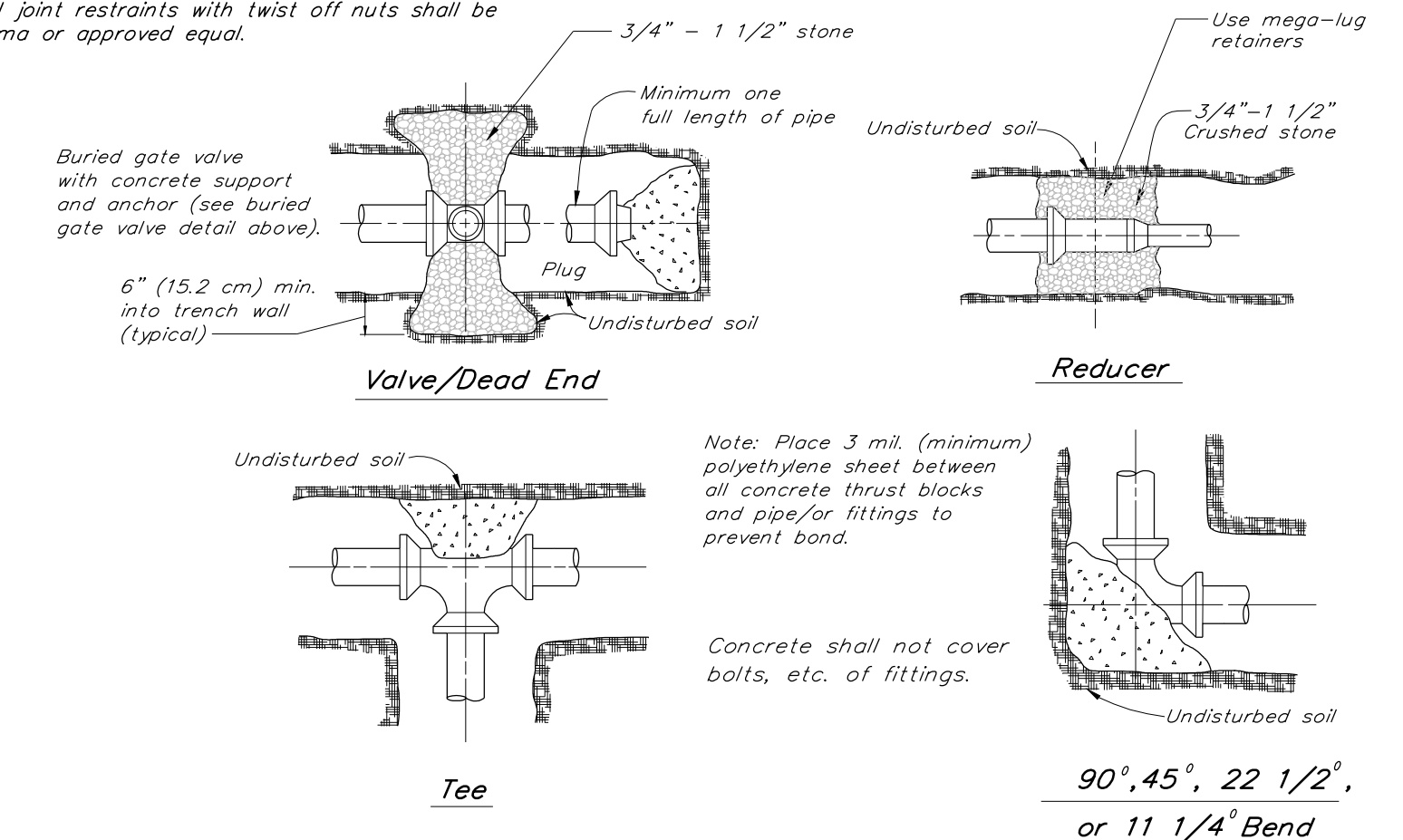
See water trench detail for bedding requirements

Water Service Detail
N.T.S.



Notes:

- A thrust block shall be installed at all water main bends, end caps, and tees.
- Precast thrust blocks are NOI acceptable.
- Use Mega-Lug retainer glands at all fittings.
- Mechanical joint restraints with twist off nuts shall be EBAA, Sigma or approved equal.



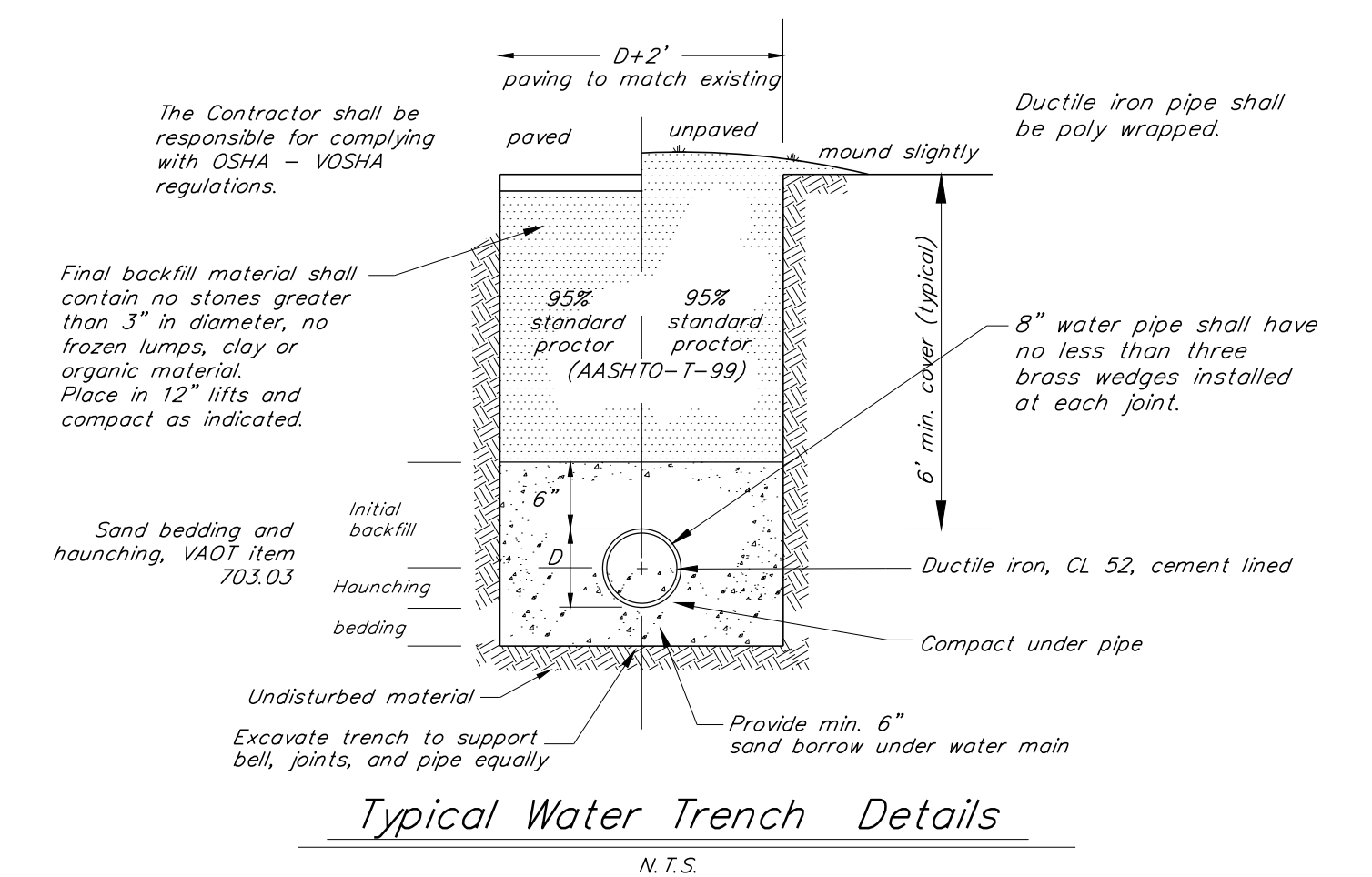
Minimum Area of Bearing Surface of Concrete Thrust Block (in square feet)

3"		4"		6"		8"		12"		SOIL CONDITION	SAFE BEARING LOAD(PSF)										
ENDS #	VALVES	REDUC.	ENDS #	VALVES	REDUC.	ENDS #	VALVES	REDUC.	ENDS #			VALVES	REDUC.								
90°	45°	22.5°	90°	45°	22.5°	90°	45°	22.5°	90°	45°	22.5°										
ELB.	ELB.	ELB.	ELB.	ELB.	ELB.	ELB.	ELB.	ELB.	ELB.	ELB.	ELB.										
0.5	0.5	0.5	0.5	1.0	0.5	1.0	1.5	1.0	0.5	2.0	2.5	1.5	4.0	5.5	3.0	1.5	Sound shale	10,000			
1.0	1.0	1.0	0.5	1.5	2.0	1.0	0.5	3.0	4.0	2.0	1.0	4.5	6.5	3.5	2.0	10.0	14.0	7.5	4.0	Cemented gravel & sand	4,000
1.0	1.0	1.0	0.5	2.0	0.5	1.5	1.0	3.5	5.0	3.0	1.5	6.0	8.5	5.0	2.5	13.0	18.5	10.0	5.0	Coarse & fine compact sand	3,000
1.5	2.5	1.5	2.5	3.5	2.0	1.0	5.5	7.5	4.0	2.0	9.0	13.0	7.0	3.5	20.0	27.5	15.0	8.0	Medium clay (can be spaded)	2,000	
3.0	4.5	2.5	1.5	5.0	7.0	4.0	2.0	10.5	15.0	8.0	4.0	18.0	25.0	14.0	7.0	39.0	55.0	30.0	15.0	Soft clay	1,000

Maximum water pressure = 200 PSI (140,620 kg/m²)

Thrust Block Details

N.T.S.



Typical Water Trench Details
N.T.S.

Date revised	Description	Checked	Date
Design	IAJ		
Drawn	IAJ		
Checked			
Scale	n.t.s.		
Date	12/1/2017		
Project	17245	Marshall Avenue	Williston, Vermont

Civil Details

BEVS

Lot 26-Production Park

DP-18-05

<p>KREBS & LANSING Consulting Engineers, Inc.</p> <p>164 Main Street, Colchester, Vermont 05446</p>	<p>Rev. No.</p> <p>Revising Date</p> <p style="font-size: 2em; font-weight: bold;">D-3</p>
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