



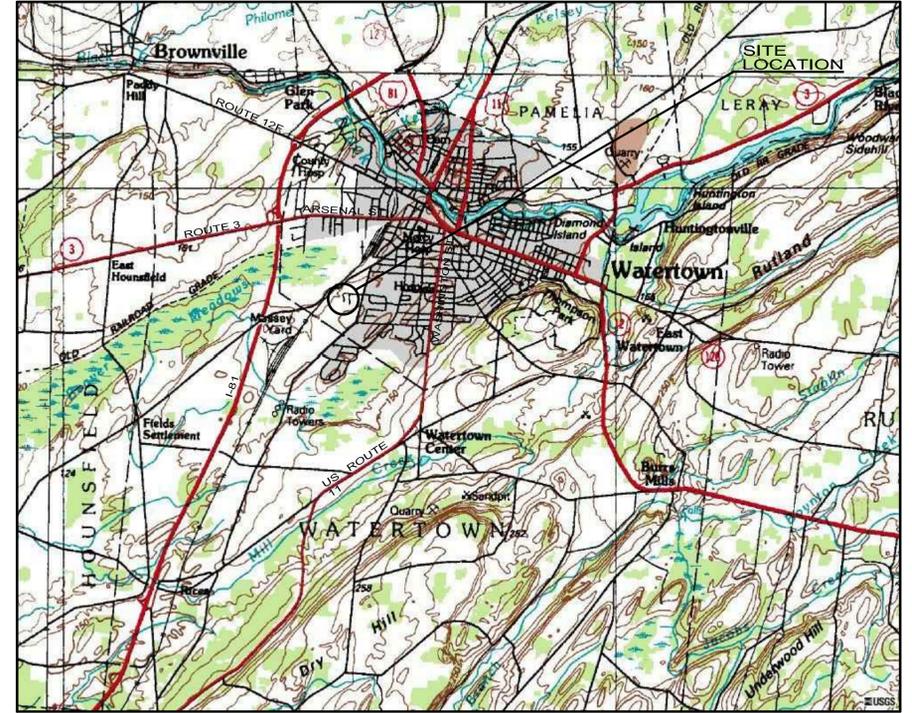
NEW YORK STATE LOCATION MAP  
APPROXIMATE SCALE: 1" = 57 MILES

# IVES HILL PHASE III

IVES HILL  
WATERTOWN, JEFFERSON COUNTY, NEW YORK

## SITE DEVELOPMENT PLANS

20 JULY 2010



LOCATION MAP  
APPROXIMATE SCALE 1" = 2400'

**INDEX OF DRAWINGS:**

- A101 - FLOOR PLAN - ENRICHED FACILITY
- A102 - FLOOR PLAN - DUPLEX A
- A103 - FLOOR PLAN - DUPLEX B
- A201 - EXTERIOR ELEVATIONS - DUPLEX A AND B
- A202 - EXTERIOR ELEVATIONS - ENRICHED LIVING FACILITY
- C001 - GENERAL NOTES & INFORMATION
- C101 - SITE PLAN
- C102 - UTILITY AND GRADING PLAN
- C501 - SITE DETAILS
- C502 - LANDSCAPING & SIGNAGE DETAILS
- C503 - SITE DETAILS
- C504 - TRENCH DETAILS
- C505 - STORM WATER DETAILS
- C506 - TEMPORARY ESC DETAILS

FOR APPROVALS ONLY  
NOT FOR CONSTRUCTION

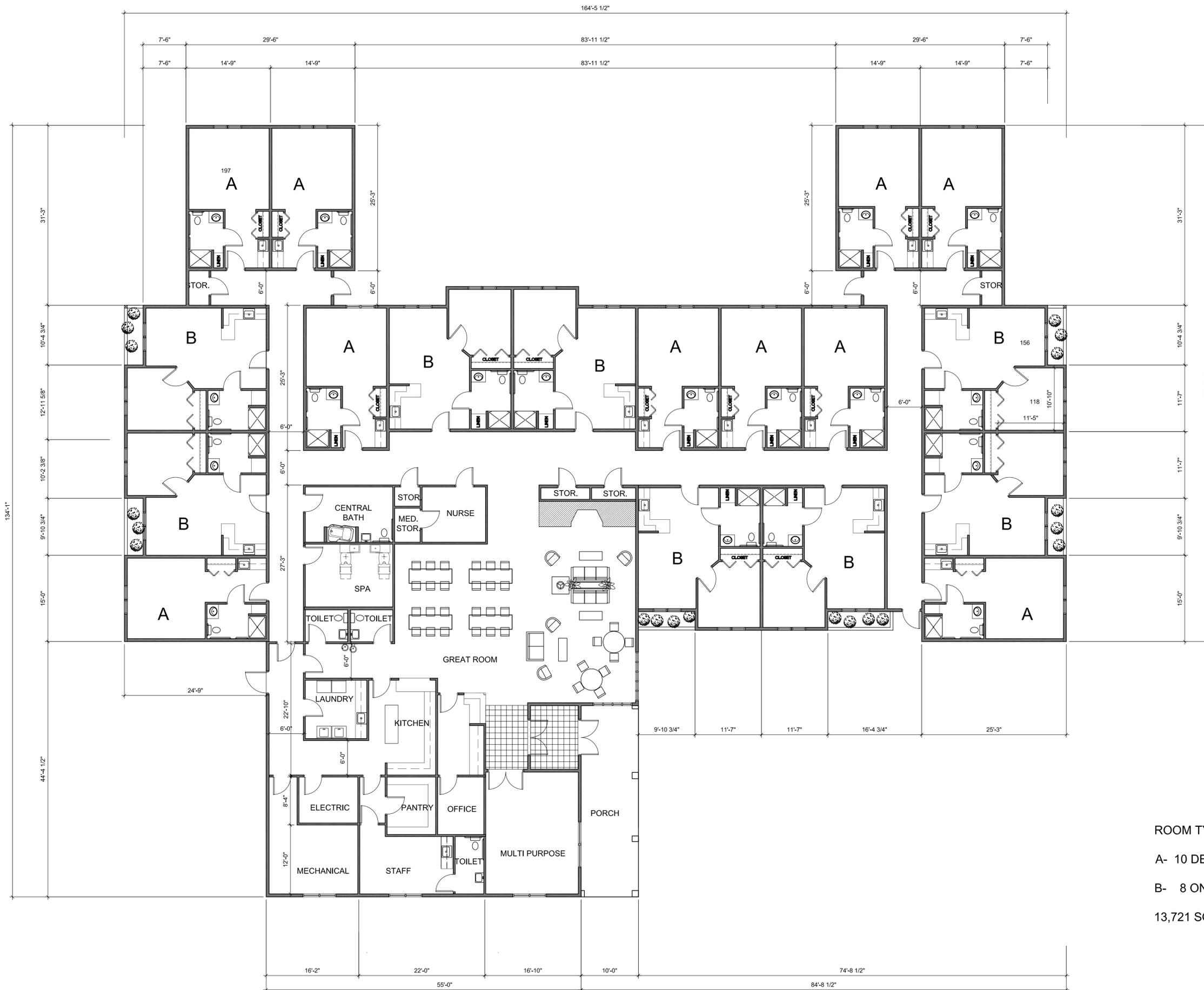
PREPARED FOR:  
PURCELL CONSTRUCTION CORP.  
CONTACT: MS. CHRISTINA SCHNEIDER  
566 COFFEEN ST.  
WATERTOWN, NY 13601  
(315) 782 - 1050

PATRICK J. SCORDO, P.E.  
New York State Reg. No. 68965



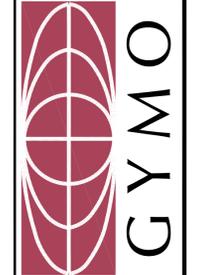
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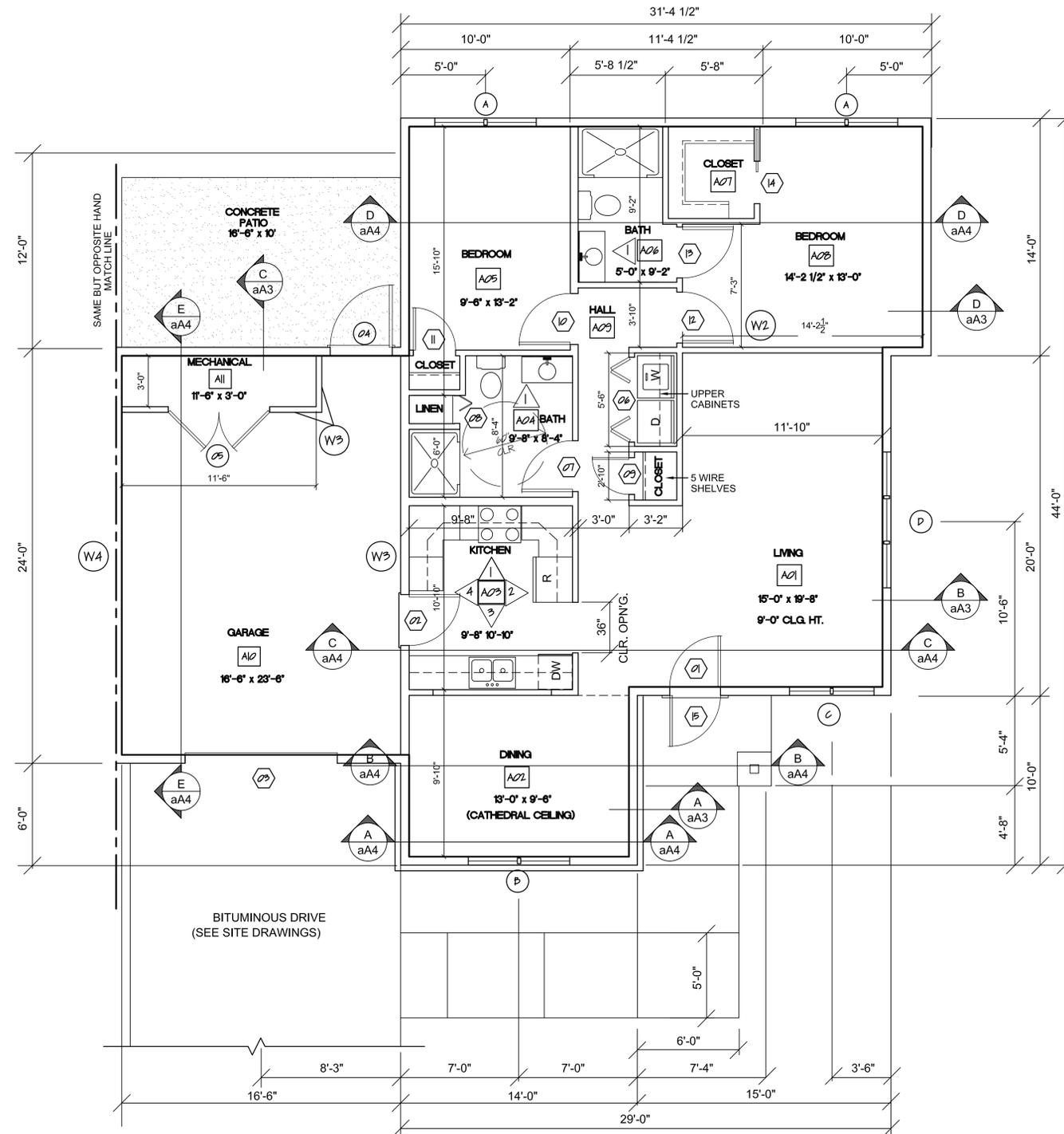
220 STERLING STREET  
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FAX (315) 788-0668  
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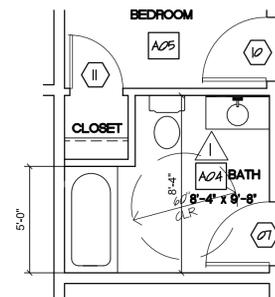
ROOM TYPES  
 A- 10 DELUXE SUITES- 340 SQ.FT.  
 B- 8 ONE BEDROOM- 481 SQ.FT.  
 13,721 SQ.FT.

FLOOR PLAN  
 SCALE: 1/8"=1'-0"

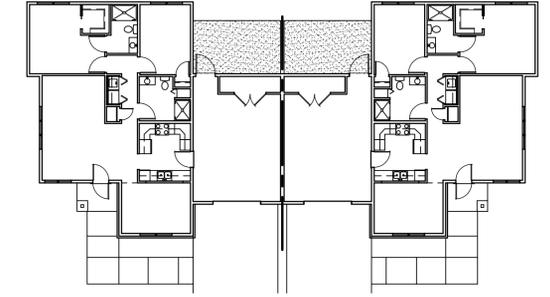




**FLOOR PLAN UNIT 'A'**  
SCALE 1/4" = 1'-0"

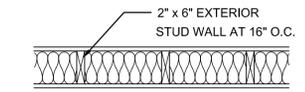


**OPTIONAL BATHROOM A04 PLAN**  
SCALE 1/4" = 1'-0"



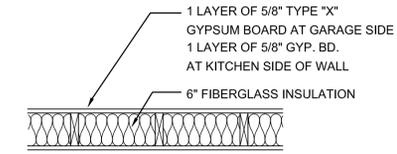
**KEY PLAN UNIT 'A'**  
SCALE 1/16" = 1'-0"

**WALL TYPES:**



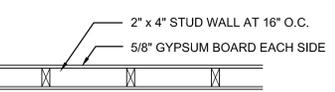
**W1 EXTERIOR/PLUMBING WALL**

- NOTE:**  
1.) SEE TYPICAL WALL SECTIONS ON DRAWING a-A3  
2.) 2"x 6" WALL AT BATHROOMS AND KITCHEN, SEE FLOOR PLAN



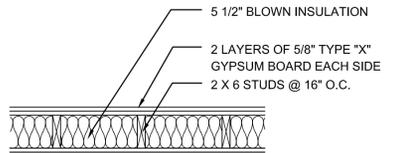
**W3 1 HOUR FIREWALL**

U.L. DES. - U305



**W2 INTERIOR WALL**

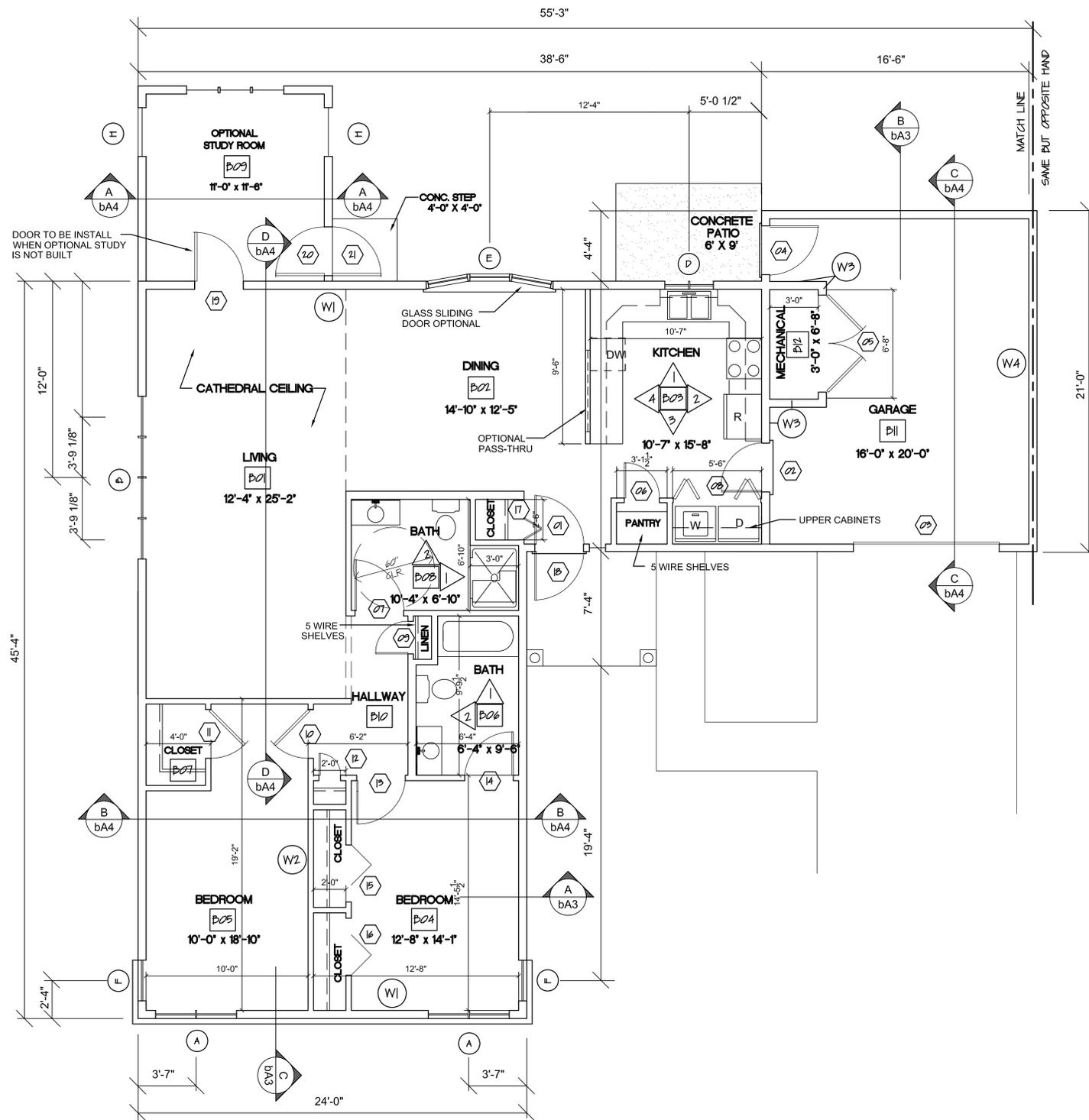
- NOTE:**  
1.) TYPICAL ALL INTERIOR WALLS, UNLESS OTHERWISE NOTED ON PLANS



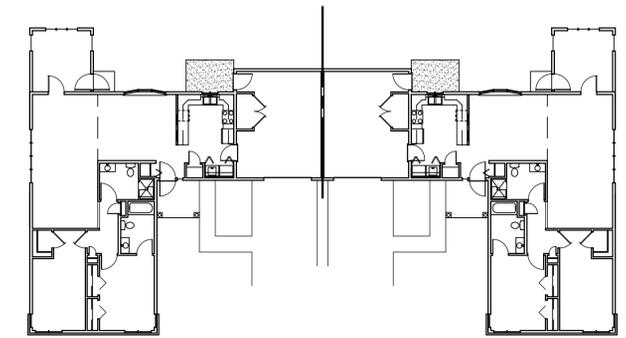
**W4 2 HR. COMMON WALL**

- U.L. DES. - U301  
**NOTE:**  
WALL TO CONTINUE TO

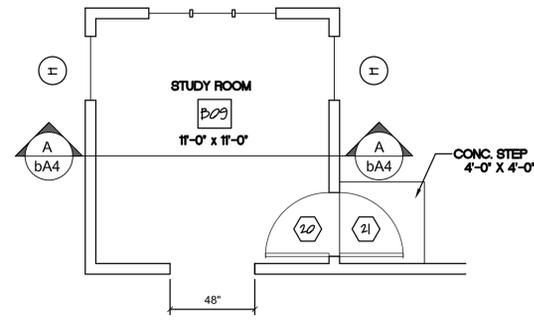




**FLOOR PLAN UNIT "B"**  
SCALE: 1/4" = 1'-0"

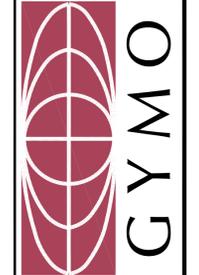
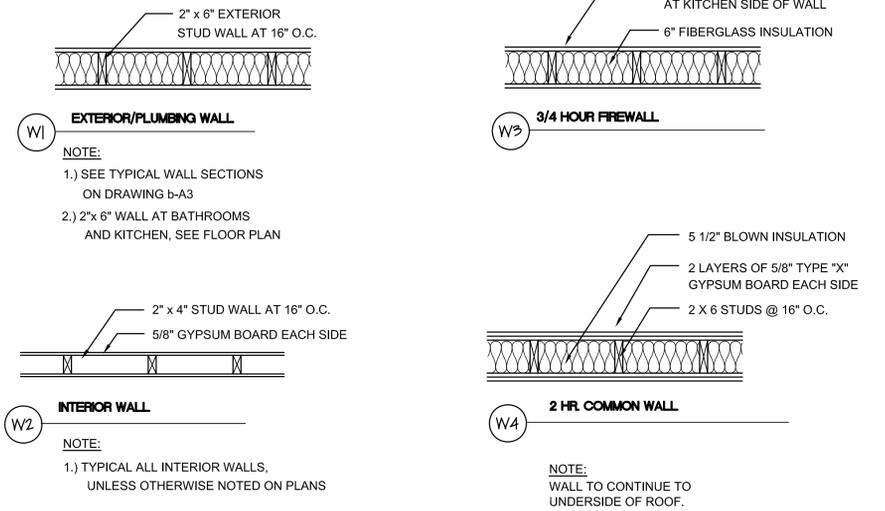


**KEY PLAN UNIT "B"**  
SCALE: 1/16" = 1'-0"



**OPTIONAL STUDY PLAN**  
SCALE: 1/4" = 1'-0"

**WALL TYPES:**





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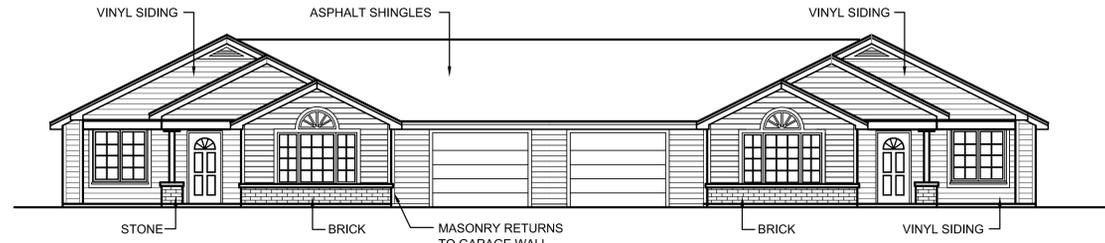
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EXTERIOR ELEVATIONS-E.L.F.

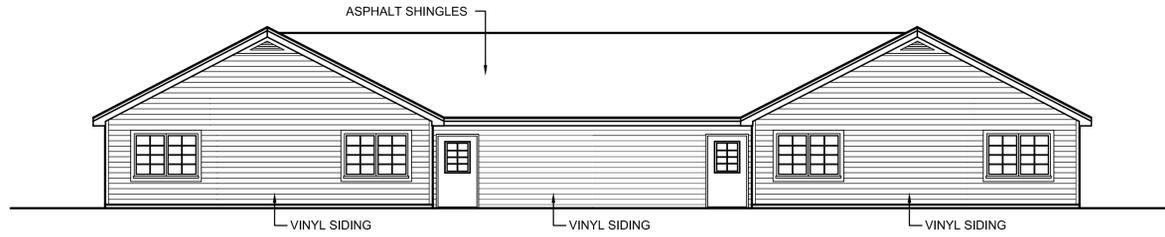
IVES HILL PHASE III  
IVES HILL, JEWELL DRIVE  
CITY OF WATERTOWN, NEW YORK 13601

Project No: 2010-077A  
Scale: AS NOTED  
Date: JULY 14, 2010  
Drawn By: SWY  
Checked By: CHECKED  
Approved By:

Drwg. No.  
**A-201**

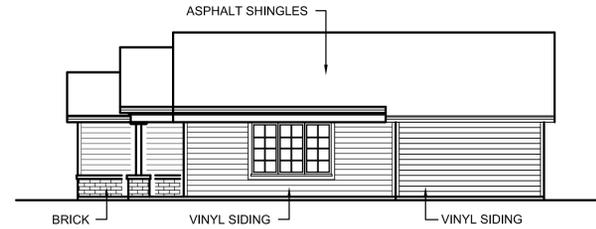


**FRONT ELEVATION**  
SCALE 1/8" = 1'-0"

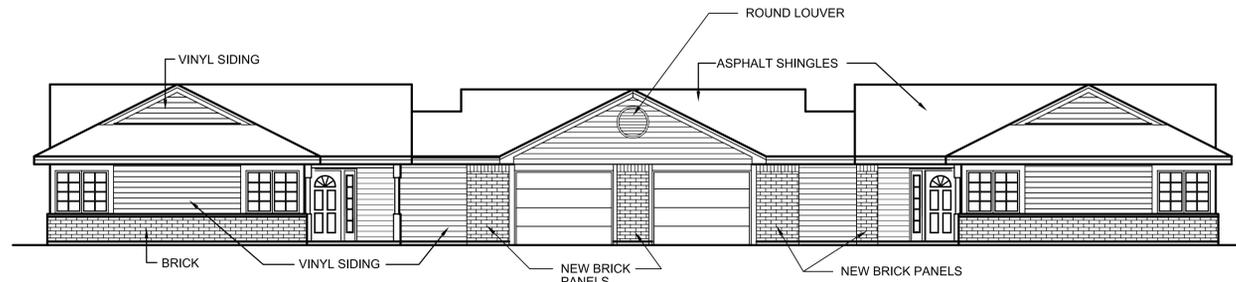


**BACK ELEVATION**  
SCALE 1/8" = 1'-0"

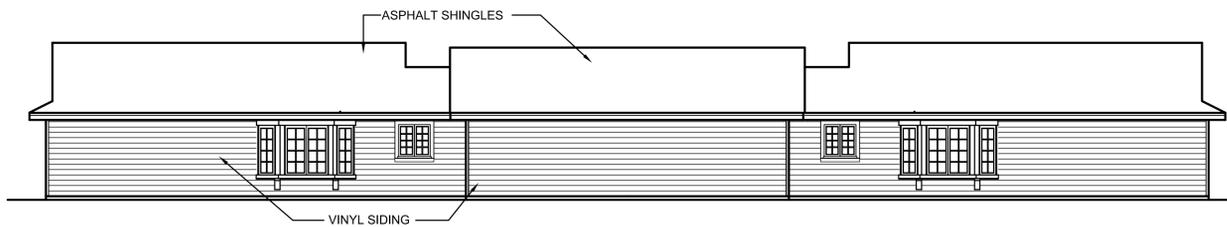
**ELEVATIONS DUPLEX 'A'**  
SCALE 1/8" = 1'-0"



**RIGHT SIDE ELEVATION**  
SCALE 1/8" = 1'-0"

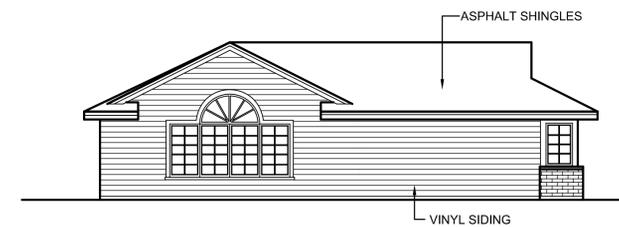


**FRONT ELEVATION**  
SCALE 1/8" = 1'-0"



**BACK ELEVATION (WITHOUT OPTIONAL STUDY)**  
SCALE 1/8" = 1'-0"

**ELEVATIONS DUPLEX 'B'**  
SCALE 1/8" = 1'-0"



**SIDE ELEVATION (WITHOUT OPTIONAL STUDY)**  
SCALE 1/8" = 1'-0"



**ABBREVIATIONS**

AC - ACRES  
 BLDG - BUILDING  
 BOT - BOTTOM  
 BW - BOTTOM OF WALL  
 C - CURVE  
 CB - CATCH BASIN  
 CF - CUBIC FEET  
 CI - CAST IRON  
 CL - CENTERLINE  
 CO - CLEAN OUT  
 CONC - CONCRETE  
 CMP - CORRUGATED METAL PIPE  
 CPP - CORRUGATED PLASTIC PIPE  
 DA - DELTA ANGLE  
 DA# - DRAINAGE AREA #  
 DEMOED - ITEM REMOVED OR DEMOLISHED  
 DI - DUCTILE IRON  
 DIA - DIAMETER  
 DWG - DRAWING  
 E - EAST  
 EG - EXISTING GRADE  
 EL - ELEVATION  
 ESC - EROSION & SEDIMENT CONTROL  
 FF - FINISHED FLOOR  
 FG - FINISH GRADE  
 GV - GATE VALVE  
 HDPE - HIGH DENSITY POLYETHYLENE PIPE  
 HYD - HYDRANT  
 IFF - IRON PIPE FOUND  
 IPS - IRON PIPE SET  
 INT - INTERSECTION  
 INV - INVERT  
 L - LENGTH  
 LF - LINEAR FEET  
 MAX - MAXIMUM  
 MIN - MINIMUM  
 N - NORTH  
 NO./# - NUMBER  
 NTS - NOT TO SCALE  
 NYSDEC - NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
 NYSDOT - NEW YORK STATE DEPARTMENT OF TRANSPORTATION  
 NYSDOH - NEW YORK STATE DEPARTMENT OF HEALTH  
 OHW - OVERHEAD WIRE  
 PC - POINT OF CURVATURE  
 PCC - POINT OF COMPOUND CURVE  
 PT - POINT OF TANGENCY  
 PVC - POLYVINYL CHLORIDE PIPE  
 R - RADIUS  
 RCP - REINFORCED CONCRETE PIPE  
 ROC - RUN OF CRUSHER  
 ROW - RIGHT-OF-WAY  
 S - SOUTH  
 SAN - SANITARY  
 SDR - STANDARD DIMENSION RATIO  
 SMWH - SANITARY MANHOLE  
 STMH - STORM MANHOLE  
 SWPPP - STORM WATER POLLUTION PREVENTION PLAN  
 TC - TIME OF CONCENTRATION  
 TL - TANGENT LENGTH  
 TYP - TYPICAL  
 TW - TOP OF WALL  
 TS & V - TAPPING SLEEVE & VALVE  
 UNO - UNLESS NOTED OTHERWISE  
 W - WEST

**MASTER LEGEND**

LEGEND:	EXISTING	PROPOSED	CONCEPTUAL
5' CONTOUR			
1' CONTOUR			
BUILDING			
BUSH			
CATCH BASIN			
CENTERLINE			
CHECK DAM			
CITY MONUMENT			
CLEANOUT			
CONCRETE SIDEWALK			
CONIFEROUS TREE			
CURB STOP			
CURBED ROAD			
DECIDUOUS TREE			
EDGE OF PAVEMENT			
ELECTRICAL BOX			
ELECTRIC MANHOLE			
FENCE			
FIRE HYDRANT			
FLOWERING PLANTINGS			
FORCEMAIN			
GAS LINE			
1/2" IRON PIPE WITH CAP SET			
IRON PIPE FOUND (AS NOTED)			
LIGHT POLE			
PROPERTY LINE			
SEWER LINE			
SEWER MANHOLE			
SIGNS			
SILT FENCE			
SOLID WHITE LANE LINE			
SPOT ELEVATION		428.01	
SPOT ELEVATION (TOP CURB/BOTTOM CURB)		428.03/01	
STORM LINE			
STORM MANHOLE			
TREELINE			
UNDERGROUND ELECTRIC			
UTILITY POLE & GUY WIRE			
WATER LINE			
WATER OUTLINE			
WATER VALVE			
WETLANDS			
BOLLARD			
WATERLINE CROSSING			

**SIGN SCHEDULE**

LABEL	SIGNS	LABEL	SIGNS
A		D	
B		E	
C			

**SIGNAGE NOTES**

- ALL OUTSIDE SIGNS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH ALL DETAILS WITHIN THE STATE OF NEW YORK DEPARTMENT OF TRANSPORTATION - METRIC STANDARD SHEETS M645-20 THROUGH M645-80. THIS INCLUDES BUT IS NOT LIMITED TO: STANDARD SIGN BLANK DETAILS (M645-50 THROUGH M645-52); STANDARD HEIGHT AND LATERAL LOCATION FOR TRAFFIC SIGNS, TYPICAL REGULATION & WARNING SIGNS ASSEMBLED (M645-55); SIGN PANEL DETAILS FOR GUIDE, INFORMATION AND OTHER SIGNS (M645-70); BI- DIRECTIONAL BREAKAWAY BASE AND HINGE ASSEMBLY (M645-72).
- ALL SIGNS AND PAINT MARKINGS ARE TO BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS AS OUTLINED IN THE LATEST VERSION OF THE FEDERAL MUTCD AND THE NYS SUPPLEMENT.

**GENERAL NOTES**

- UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN. PRIOR TO CONSTRUCTION CONTACT UNDERGROUND UTILITIES CALL CENTER OF NEW YORK FOR EXACT LOCATION OF ALL UNDERGROUND UTILITIES. (1-800-962-7962). CONTRACTOR IS RESPONSIBLE FOR LOCATING AND WORKING WITH THE APPROPRIATE UTILITY COMPANIES PRIOR TO CONSTRUCTION.
- THE TOPOGRAPHIC SURVEY WAS DERIVED FROM A GRADING PLAN PRODUCED BY GYMO, PC DATED SEPTEMBER 2005, AND WAS FIELD VERIFIED IN JUNE 2010 BY GYMO, PC.
- ALL OUT-OF-SCOPE AREAS DISTURBED BY THE CONTRACTOR'S OPERATIONS WILL BE RESTORED TO CONDITIONS EQUAL TO OR BETTER THAN THAT PRIOR TO CONSTRUCTION. OUTSIDE OF PROPERTY BOUNDARIES AND EASEMENT AREAS THE CONTRACTOR IS REMINDED TO OBTAIN WRITTEN AUTHORIZATION TO USE PRIVATE PROPERTY AND ASSUMES ALL LIABILITY WHEN ACCESSING THOSE PROPERTIES.
- THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE CHARACTERISTICS AND EXTENT OF SUBSURFACE SOILS, ROCK, WATER TABLE LEVELS, ETC., PRIOR TO BIDDING.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS, SECURITY, BONDS, FEES, AND PAYMENTS TO OBTAIN SAID PERMITS WHERE APPLICABLE.
- WHEN THE PERFORMANCE OF THE CONTRACTOR'S WORK REQUIRES THE INTERRUPTION OF UTILITY SERVICES, HE/SHE SHALL ISSUE A 48 HOUR PRIOR NOTICE TO THE GOVERNING MUNICIPALITY.
- SITE CONTRACTOR TO PROVIDE EROSION AND SEDIMENT CONTROL AND DUST CONTROL.
- A LICENSED LAND SURVEYOR SHALL BE RETAINED FOR ALL UTILITY AND FIELD STAKEOUT AND AS-BUILTS AT THE CONTRACTORS EXPENSE.
- CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL MEASURES THROUGHOUT CONSTRUCTION UNTIL ESTABLISHMENT OF VEGETATIVE COVER. RUN-OFF CONTAINING SEDIMENTS FROM DISTURBED AREAS OF THE SITE SHALL NOT BE ALLOWED DIRECTLY OFF SITE OR INTO NATURAL STREAM CHANNELS.
- ALL EXISTING TREES TO REMAIN SHALL BE PROTECTED BY THE CONTRACTOR. CONSTRUCTION ACTIVITIES ADJACENT TO TREES SHALL BE CONDUCTED TO REDUCE THE IMPACT TO TREES TO THE MAXIMUM EXTENT PRACTICAL. ANY DAMAGE TO EXISTING TREES SHALL BE REPAIRED OR THE TREE REPLACED, AS DIRECTED BY THE OWNER AT THE CONTRACTORS EXPENSE.
- CONTRACTOR SHALL BE RESPONSIBLE FOR CLEARING, GRUBBING, CUTTING AND DISPOSING OF VEGETATION, TREES AND DEBRIS IN A NYSDEC ACCEPTABLE LOCATION.
- CONTRACTOR SHALL PERFORM ALL NECESSARY EARTHWORK, INCLUDING THE STRIPPING, STOCKPILING AND REPLACING OF TOPSOIL IN ACCORDANCE WITH THE PLANS. EXCESS MATERIAL SHALL BE REMOVED FROM THE SITE.
- EXCAVATIONS SHALL BE TO DEPTHS SHOWN ON DRAWINGS. ALL UNSTABLE OR UNSUITABLE MATERIAL SHALL BE EXCAVATED AND REMOVED TO SUCH DEPTH AS REQUIRED TO PROVIDE SUFFICIENT BEARING CAPACITY. OVER-EXCAVATED AREAS SHALL BE BACKFILLED WITH SUITABLE MATERIAL.
- COMPACTION OF PIPE BEDDING AND BACKFILL MATERIAL SHALL BE BY MEANS OF HAND-GUIDED POWER DRIVEN, DRUM-TYPE, OR PLATE TAMPERS. BACKFILLING SHOULD PROCEED IN ACCORDANCE WITH LIFT THICKNESSES AND COMPACTION REQUIREMENTS AS SHOWN ON THE DRAWINGS. UNLESS OTHERWISE NOTED ON THE DRAWINGS, COMPACTION REQUIREMENTS REFER TO PERCENT OF MAXIMUM DRY DENSITY AS DETERMINED IN ACCORDANCE WITH ASTM STANDARD D1557 METHOD "C". CARE SHALL BE TAKEN TO SHAPE PIPE BEDDING TO FIT THE LOWER PART OF THE PIPE. BACKFILLING AND COMPACTION SHOULD PROGRESS EVENLY ALONG THE PIPE SIDEWALLS AND TO THE TOP OF THE PIPE BEDDING.
- COMPACTION SHALL BE 85% MAXIMUM DRY DENSITY IN GRASS AREAS AND 90% MAXIMUM DRY DENSITY IN GRAVEL AREAS. MAXIMUM DRY DENSITY SHALL BE AS DETERMINED BY ASTM - D1557 MODIFIED PROCTOR METHOD C. THE CONTRACTOR SHALL HIRE AN INDEPENDENT TESTING AGENCY TO PERFORM PAVEMENT TESTING PER TECHNICAL SPECIFICATIONS AND PROVIDE THE RESULTS TO THE OWNER AND CITY FOR REVIEW PRIOR TO FINAL PAYMENT.
- THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES OF DIMENSIONS, ELEVATIONS AND LOCATIONS DURING PRECONSTRUCTION FIELD VERIFICATION. SUCH INFORMATION SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR VERIFICATION OR MODIFICATION OF THE PLANS.
- WITHIN 20 DAYS AFTER THE COMPLETION OF THE BUILDING PAD AND PAVEMENT SUBGRADE BY CONTRACTOR, THE CONTRACTOR SHALL DELIVER TO THE OWNER, AN AS-BUILT SURVEY, SIGNED AND SEALED BY A LAND SURVEYOR OR ENGINEER LICENSED IN THE STATE OF NEW YORK. AS-BUILT RECORD DRAWINGS SHALL INCLUDE, AS A MINIMUM, THE FOLLOWING INFORMATION AS WELL AS ALL REQUIREMENTS OF THE SPECIFICATION:
  - RECORD OF ALL UTILITIES ENCOUNTERED IN TRENCH EXCAVATION. INFORMATION SHALL INCLUDE DIAMETER OF UTILITY, DEPTH OF BURIAL AND LOCATION WITH REFERENCE TO NEAREST STRUCTURE SHOWN ON DRAWINGS. THIS INFORMATION SHALL BE KEPT CURRENT ON A WEEKLY BASIS. FAILURE TO DO SO MAY RESULT IN WITHHOLDING OF PAYMENTS.
  - UTILITY REPAIRS, SIDEWALK AND DRIVEWAY REPLACEMENTS, CENTERLINE, MANHOLES, CLEAN OUTS, CATCH BASINS, ETC.
  - RM AND INVERT ELEVATIONS AND HORIZONTAL LOCATION OF MANHOLES, CATCH BASINS, AND CLEANOUTS.
  - STATIONS OF BENDS AND VALVES.
  - DENOTED BENCH MARK REFERENCES USED.
  - PERIODIC OFFSETS
  - BUILDING PAD AND PAVEMENT SUBGRADE FINAL GRADES
  - NOTATION FROM THE ENGINEER OR SURVEYOR THAT THE GRADES ARE IN CONFORMANCE WITH THE SITE PLANS.
  - RECORD DETAILS NOT SHOWN ON THE ORIGINAL CONTRACT DOCUMENTS. ANY FIELD CHANGES OF DIMENSIONS AND DETAILS AND ANY CHANGES MADE BY CHANGE ORDER OR FIELD ORDER.
  - CERTIFICATE OF SUBSTANTIAL COMPLETION SHALL NOT BE ISSUED UNTIL AS-BUILT INFORMATION IS ACCEPTABLE.
  - TWO (2) SETS OF FINAL COMPLETE RECORD DRAWINGS. CONTRACTOR SHALL FURNISH AS-BUILT DATA ON PLAN SHEETS.
- UPON COMPLETION OF STORM SEWER FACILITIES AND ESTABLISHMENT OF VEGETATION, THE NEW AND EXISTING STORM SYSTEMS RECEIVING RUNOFF FROM THIS SITE SHALL BE CLEANED OF DEBRIS. ONLY AT THIS TIME SHALL THE EROSION AND SEDIMENTATION CONTROL MEASURES BE REMOVED.
- CONTRACTOR SHALL PROVIDE SATISFACTORY DEWATERING AND DRAINAGE OF EXCAVATIONS. SEE DEWATERING AND DRAINAGE IN THE TECHNICAL SPECIFICATIONS FOR MORE DETAILED INFORMATION.
- A STORM WATER POLLUTION PREVENTION PLAN HAS BEEN PREPARED FOR THIS PROJECT. THE CONTRACTOR SHALL COMPLY WITH THE NYSDEC REQUIREMENTS WITHIN THIS REPORT.
- ALL WATERMAIN WORK IS TO BE COORDINATED WITH THE CITY OF WATERTOWN WATER DEPARTMENT. WATER DEPARTMENT REQUIREMENTS WILL SUPERCEDE ALL OTHER PLANS AND SPECIFICATIONS.
- PERMITS: THE FOLLOWING PERMITS MUST BE OBTAINED FROM THE ENGINEERING DEPARTMENT BEFORE THE START OF SITE CONSTRUCTION:
  - SIDEWALK - NO FEE
  - SANITARY SEWER LATERAL (COMMERCIAL) - \$ TO BE DETERMINED
  - NUMBER OF SEWER PERMITS REQUIRED WILL BE DETERMINED BASED ON THE PROPOSED SCHEDULE FOR COMPLETION OF THE HOUSING UNITS.
  - CURB CUT - \$15
  - PAVEMENT CUT - FEE BY FORMULA
  - CITY PERMIT - NO FEE

PLEASE NOTE THAT ANY CONTRACTOR WORKING WITHIN THE CITY OF WATERTOWN MUST PROVIDE A CURRENT CERTIFICATE OF LIABILITY INSURANCE (ACORD 25). IN ADDITION, NYS ALSO MANDATES PROOF OF WORKER'S COMPENSATION BE SHOWN PRIOR TO THE ENGINEERING DEPARTMENT ISSUING ANY PERMITS.

**PLANTING SCHEDULE**

COMMON NAME	ABBREV.	BOTANICAL NAME	SIZE	QTY.
AUSTRIAN PINE	AP	PINUS NIGRA	5-6' BB.	5
AUTUMN BLAZE MAPLE	AM	ACER x FREMANII 'AUTUMN BLAZE'	2" CAL	3
COLORADO BLUE SPRUCE	CBS	PICEA PUNGENS	5-6' BB.	5
CRIMSON KING MAPLE	CM	ACER PLAT. 'CRIMSON KING'	2" CAL	5
PAPER BIRCH	PB	BETULA PAPIRIFERA	2" CAL	3
PRAIRIFIRE CRABAPPLE	PC	MALUS PRAIRIFIRE'	2" CAL	5
CANADIAN HEMLOCK	CH	TSUGA CANADENSIS	4-5' B.B.	5
SHADEMASTER HONEYLOCUST	SH	GLEDITSIA T. L. 'SHADEMASTER'	2" CAL	5

**IVES HILL PHOTOMETRICS**

Symbol	Qty	Label	Arrangement	Lumens	LDG	LLD	BF	LLF	Description
	6	L1	SINGLE	33000	0.9	0.75	1	0.675	MPTR-35-350
	2	L2	SINGLE	33000	0.9	0.75	1	0.675	MPTR-35-350

Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
CalcPts	Illuminance	Fc	0.85	3.4	0.0	N.A.	N.A.
Prop Line	Illuminance	Fc	0.00	0.1	0.0	N.A.	N.A.
CalcPts_1	Illuminance	Fc	1.11	3.5	0.1	11.10	35.00

**PLANNING DATA**

ITEM	REQUIRED/ALLOWED	PROPOSED
CURRENT ZONING CLASSIFICATION - PLANNED DEVELOPMENT DISTRICT PROPOSED USE - ENRICHED LIVING FACILITY (ELF) AND MULTIFAMILY		
<b>AREA AND BULK CALCULATIONS</b>		
BUILDING AREA	N.A.	TOTAL = 29,670SF
BUILDING COVERAGE	20% MAX.	10.4%
FRONT YARD SETBACK	20'	20'
SIDE YARD SETBACK	5'	71.16'
REAR YARD SETBACK	25'	>>25'
PARKING SPACES	1 SPACE FOR EVERY 3 BEDS 2 SPACE FOR EVERY 10 BEDS - GUESTS (1/3 X 18 BEDS) + (1/10 X 18 BEDS) = 8 SPACES	11 SPACES 2 HC SPACES TOTAL = 13 SPACES (ELF)

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 FAX (315) 788-0669  
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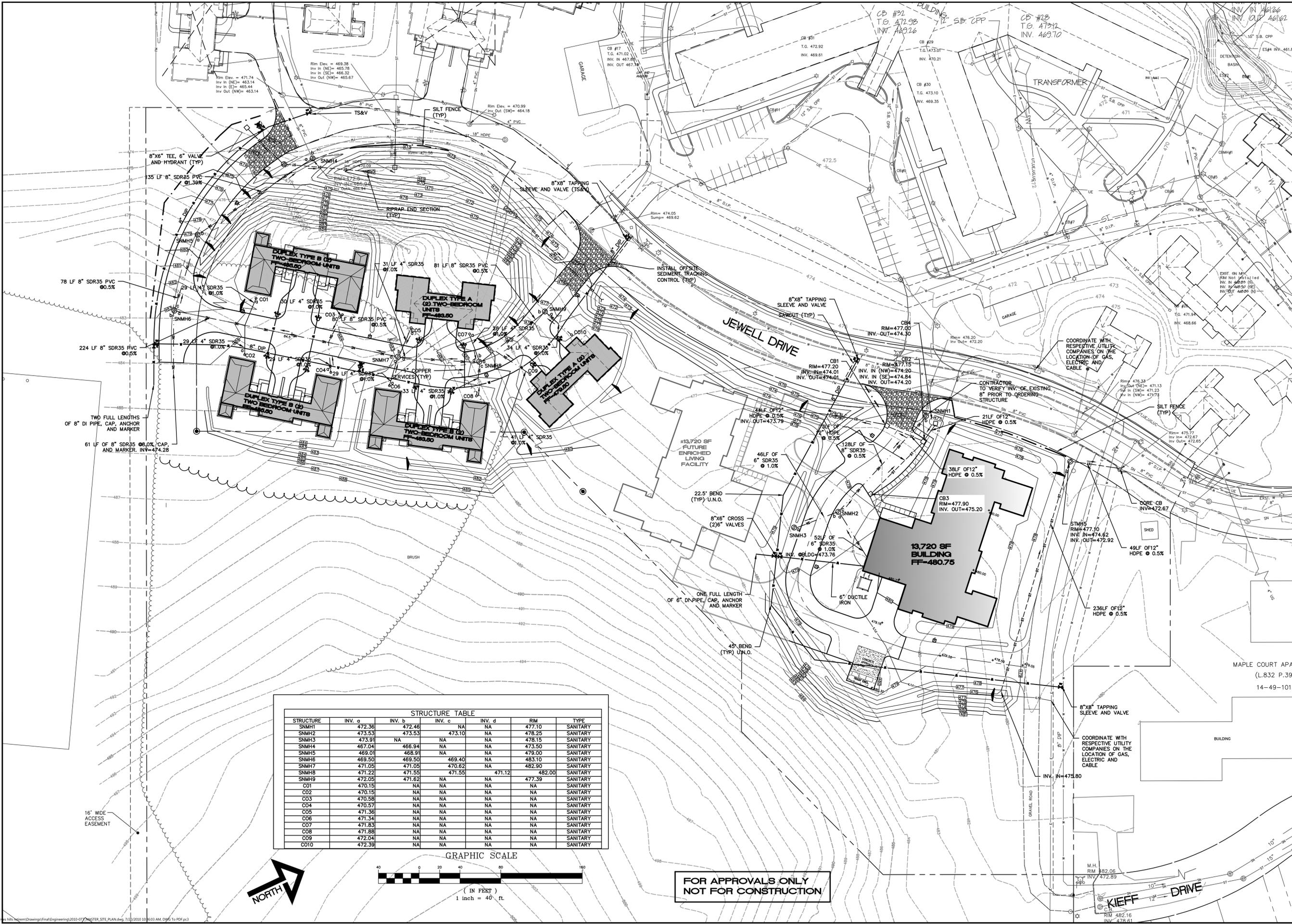
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 ARCHITECTURE, ENGINEERING & LAND SURVEYING, P.C.  
 IT IS A VIOLATION OF SECTION 2405 SUBSECTION 2 OF THE NEW YORK STATE EDUCATION LAW FOR ANY PERSON UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR TO ALTER THIS DOCUMENT IN ANY MANNER. SUCH ALTERATIONS SHALL APPLY HIS OR HER OATH AND THE APPLICABLE LICENSE BY PROVIDED BY HIS OR HER ASSOCIATION. THIS AND A SPECIFIC DESCRIPTION OF ALTERATION.

GENERAL NOTES & INFORMATION  
 IVES HILL PHASE III  
 IVES HILL - JEWELL DRIVE  
 CITY OF WATERTOWN, NY

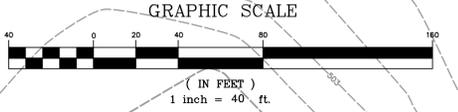
Project No: 2010-077  
 Scale: As Noted  
 Date: 7/16/10  
 Drawn By: THR  
 Designed By: BJD  
 Checked By:  
 Date Issued: 7/20/10  
 Drwg. No.

C001

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STRUCTURE TABLE						
STRUCTURE	INV. a	INV. b	INV. c	INV. d	RIM	TYPE
SNMH1	472.36	472.46	NA	NA	477.10	SANITARY
SNMH2	473.53	473.53	473.10	NA	478.25	SANITARY
SNMH3	473.91	NA	NA	NA	478.15	SANITARY
SNMH4	467.04	468.94	NA	NA	473.50	SANITARY
SNMH5	469.01	468.91	NA	NA	479.00	SANITARY
SNMH6	469.50	469.50	469.40	NA	483.10	SANITARY
SNMH7	471.05	471.05	470.82	NA	482.90	SANITARY
SNMH8	471.22	471.55	471.55	471.12	482.00	SANITARY
SNMH9	472.05	471.62	NA	NA	477.39	SANITARY
C01	470.15	NA	NA	NA	NA	SANITARY
C02	470.15	NA	NA	NA	NA	SANITARY
C03	470.58	NA	NA	NA	NA	SANITARY
C04	470.57	NA	NA	NA	NA	SANITARY
C05	471.36	NA	NA	NA	NA	SANITARY
C06	471.34	NA	NA	NA	NA	SANITARY
C07	471.83	NA	NA	NA	NA	SANITARY
C08	471.88	NA	NA	NA	NA	SANITARY
C09	472.04	NA	NA	NA	NA	SANITARY
C010	472.39	NA	NA	NA	NA	SANITARY



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UTILITY AND GRADING PLAN  
IVES HILL - PHASE III  
IVES HILL - JEWELL DRIVE  
CITY OF WATERTOWN, NY

Project No: 2010-077  
Scale: As Noted  
Date: 6/18/10  
Drawn By: BJD  
Designed By: BJD  
Checked By:  
Date Issued: 7/20/10  
Drwg. No.

C102

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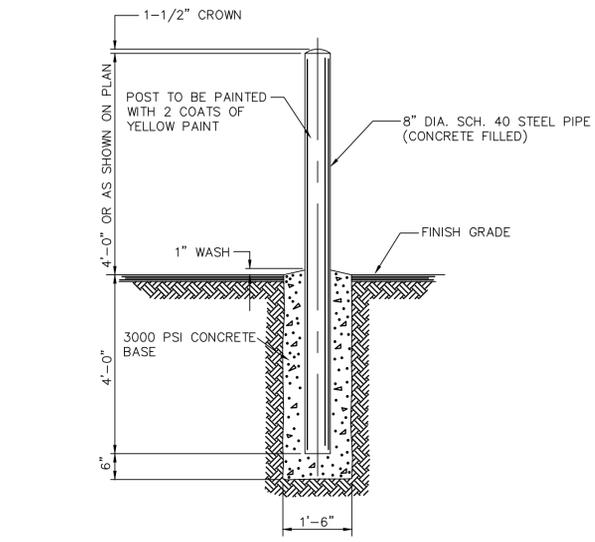
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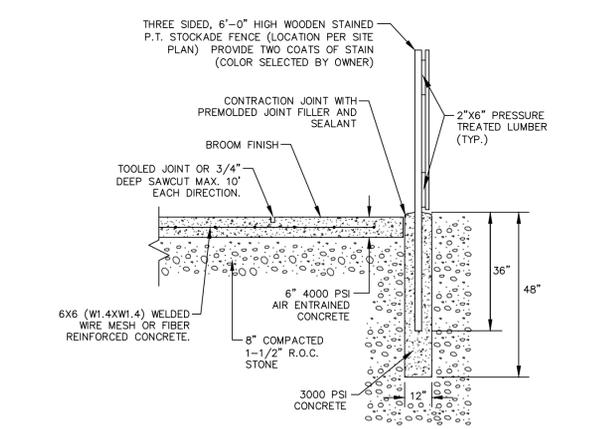
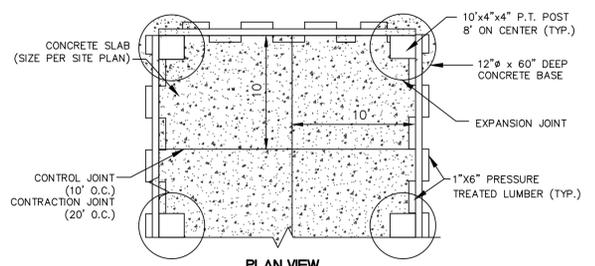
SITE DETAILS  
IVES HILL PHASE III  
IVES HILL - JEWELL DRIVE  
CITY OF WATERTOWN, NY

Project No: 2010-077  
Scale: As Noted  
Date: 7/16/10  
Drawn By: THR  
Designed By: BJD  
Checked By:  
Date Issued: 7/20/10  
Drwg. No.

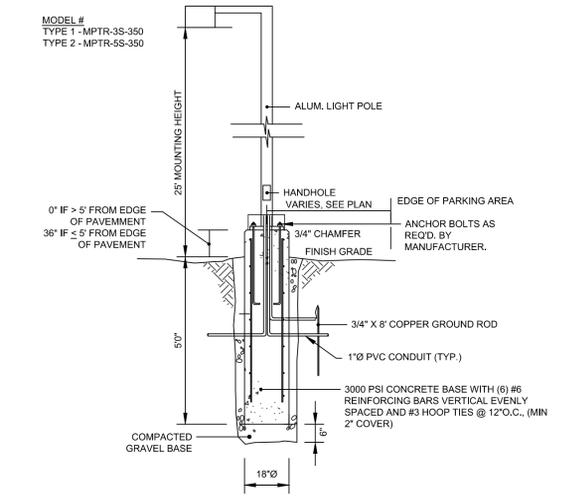
C501



1 CONCRETE BOLLARD DETAIL  
C501 NOT TO SCALE

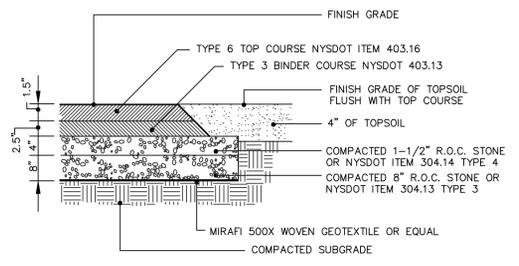


4 CONCRETE DUMPSTER, APPROACH, GENERATOR, AND UTILITY PAD DETAIL  
C501 NOT TO SCALE D173-01



7 TYPICAL LIGHT POLE BASE DETAIL  
C501 NOT TO SCALE

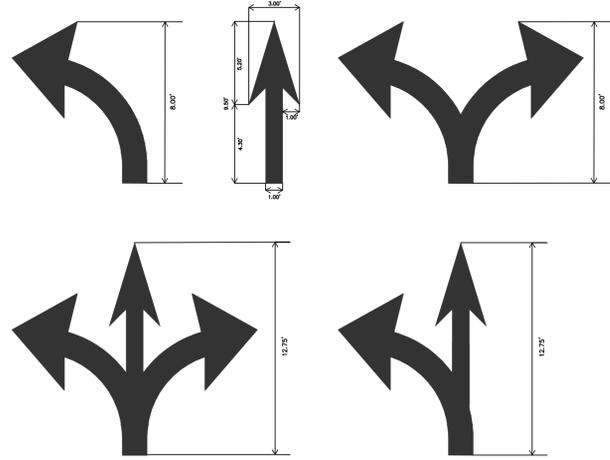
NOTE:  
1. THE OWNER SHALL INSTALL A PCR-1 PHOTOCONTROL RECEPTACLE AS MANUFACTURED BY ARCHITECTURAL LIGHTING OR APPROVED EQUAL, ON THE FIRST POLE ON THIS CIRCUIT. PHOTOCONTROL RECEPTACLE SHALL BE WIRED TO CONTROL ALL THE LIGHT FIXTURES.



RUN OF CRUSHER STONE - SHALL BE ANGULAR CRUSHED UNSORTED LIMESTONE, WELL GRADED WITH SUFFICIENT FINES TO FILL ALL VOIDS WHEN COMPACTED. GRADATION SHALL BE AS FOLLOWS:

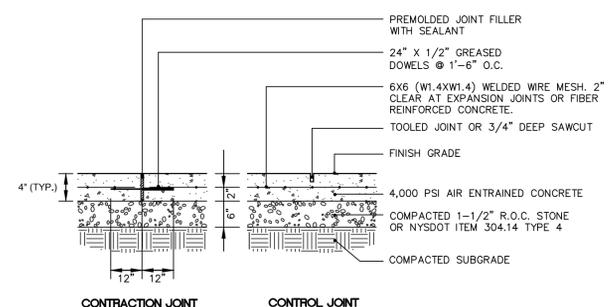
SIEVE	% PASSING BY WT.	
	(1-1/2")	(4")
4"	100	100
3"	90-100	90-100
2"	75-90	75-90
1-1/2"	100	50-70
1-1/4"	90-100	40-65
1/2"	60-80	25-40
#40	10-40	0-10
#200	0-10	0-10

2 TYPICAL PAVEMENT DETAIL (PARKING AREAS)  
C501 NOT TO SCALE D153-01



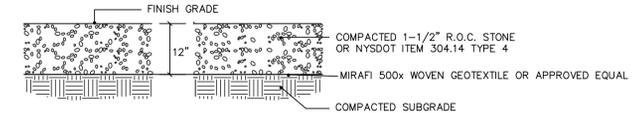
NOTES:  
1. WORDS AND ARROWS FOR DRIVEWAYS SHALL BE APPLIED ACCORDING TO REQUIREMENTS AS OUTLINED IN THE 2003 MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS.  
2. THESE MARKINGS ARE TO BE PAINTED REFLECTIVE WHITE.

5 TYPICAL TRAFFIC FLOW ARROWS  
C501 NOT TO SCALE



NOTES:  
1. CONTRACTION JOINTS TO BE SPACED 20' O.C. MAX., CONTROL JOINTS TO BE SPACED 5' O.C. MAX.  
2. CROSS SLOPE IN SIDEWALK TO BE MIN. 1/4" PER FOOT.  
3. WIDTH: PER SITE PLAN

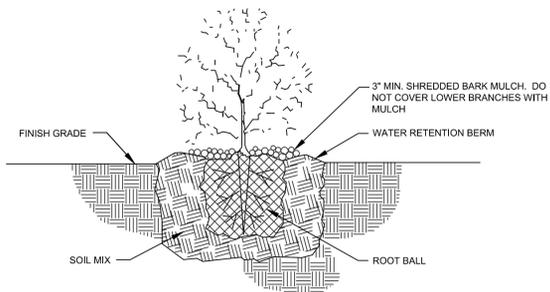
3 TYPICAL CONCRETE WALK SECTION  
C501 NOT TO SCALE D154-01



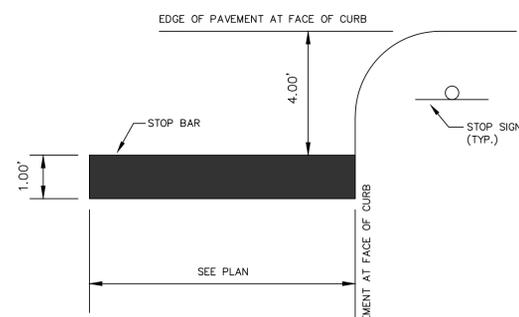
NOTES:  
1. CROSS SLOPE IN DRIVE TO BE MIN. 1/4" PER FOOT. (UNLESS OTHERWISE NOTED)

6 TYPICAL 15' GRAVEL DRIVE SECTION  
C501 NOT TO SCALE D172-01

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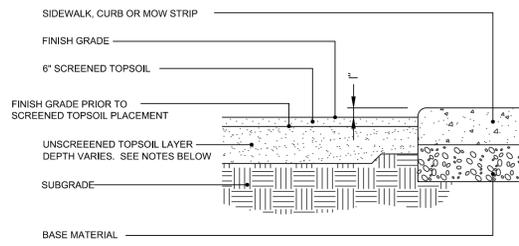


1	<b>SHRUB PLANTING DETAIL</b>
C502	NOT TO SCALE



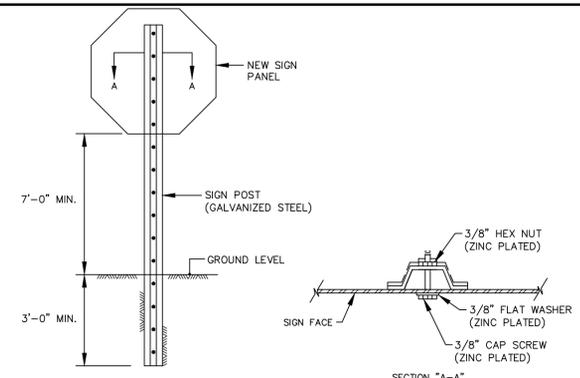
NOTES:  
 1. WORDS AND ARROWS FOR DRIVEWAYS SHALL BE APPLIED ACCORDING TO REQUIREMENTS AS OUTLINED IN THE 2003 MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS.  
 2. THESE MARKINGS ARE TO BE PAINTED REFLECTIVE WHITE.

2	<b>TYPICAL STOP BAR DETAIL</b>
C502	NOT TO SCALE



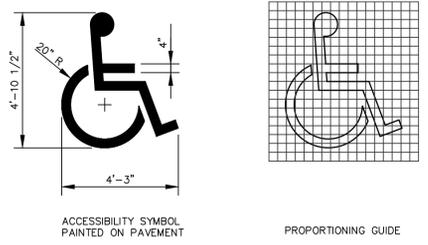
NOTES:  
 GRASSED AREAS - UNSCREENED TOPSOIL SHALL BE 8" IN DEPTH  
 PLANTING BED AREAS - UNSCREENED TOPSOIL SHALL BE 14" IN DEPTH  
 TREE PLANTING AREAS - UNSCREENED TOPSOIL SHALL BE 20" IN DEPTH & 10' IN DIAMETER.

3	<b>SOIL PROFILE - VARIOUS AREAS</b>
C502	NOT TO SCALE
	D132-02

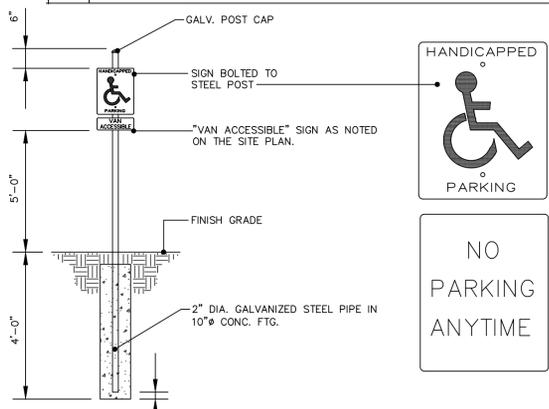


NOTE: UTILIZE BREAK AWAY BASE PER NYS DOT DETAILS.

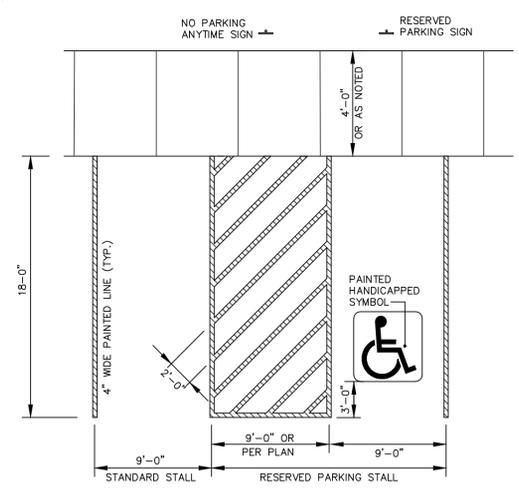
4	<b>TYPICAL SIGN-IN GROUND INSTALLATION DETAIL</b>
C502	NOT TO SCALE
	SW135-01



5	<b>TYPICAL HANDICAP SYMBOL DETAIL</b>
C502	NOT TO SCALE
	D156-01

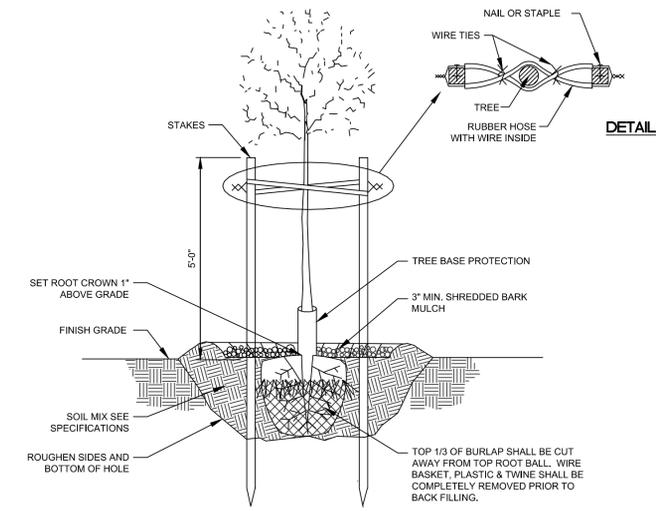


6	<b>TYPICAL HANDICAP SIGN DETAIL</b>
C502	NOT TO SCALE
	D157-01



NOTES:  
 1. MAX. PAVEMENT SLOPE TO BE 2% (1:50) IN ANY DIRECTION, FOR HANDICAP AREAS.

7	<b>TYPICAL PARKING STALL MARKINGS</b>
C502	NOT TO SCALE
	SW136-01



7	<b>TREE PLANTING AND STAKING DETAIL</b>
C502	NOT TO SCALE

NOTE: DO NOT OVER TIGHTEN WIRE. SLACK SHALL REMAIN TO ALLOW FOR SOME MOVEMENT.

**LANDSCAPING NOTES**

1. PLANT SPECIES WERE SELECTED TO GROW IN EXISTING SOIL CONDITIONS AND HARDINESS ZONES. PLANT SPECIES WERE ALSO CHOSEN ACCORDING TO GROWTH HABIT, SHAPE, SIZE, COLOR, FLOWER AND FALL COLOR. ANY SUBSTITUTIONS MUST BE REVIEWED BY THE ARCHITECT OR ENGINEER.
2. ALL TREES SHALL ARRIVE ON SITE BEARING THE ORIGINAL IDENTIFICATION TAGS SHOWING THE BOTANICAL NAME, COMMON NAME AND SIZE.
3. ALL TREES SHALL HAVE A MIN. 4" DIA. SHREDDED HARDWOOD MULCH RING AROUND THE BASE OF THE TREE.
4. ALL LANDSCAPE BEDS SHALL HAVE WEED BARRIER FABRIC AND 3" MIN. DEEP SHREDDED HARDWOOD MULCH.
5. ALL PLANT MATERIAL SHALL BE THOROUGHLY WATERED BY THE CONTRACTOR AT THE TIME OF PLANTING.
6. CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UNDERGROUND UTILITIES SHOWN ARE BASED ON RECORDS OF VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, FIELD MEASUREMENTS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT UNDERGROUND UTILITIES CALL CENTER OF NEW YORK (1-800-962-7962) TO OBTAIN EXACT FIELD LOCATIONS OF ALL SUCH UTILITIES PRIOR TO START OF CONSTRUCTION.

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 SEAL AND THE APPLICABLE LICENSE  
 BY FOLLOWING BY HIS OR HER  
 SIGNATURE, DATE AND A SPECIFIC  
 DESCRIPTION OF ALTERATION.

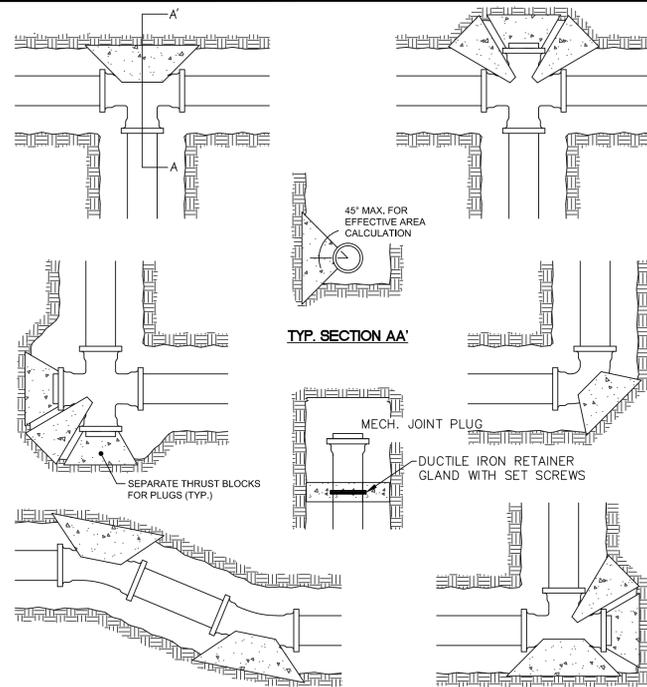
LANDSCAPING & SIGNAGE DETAILS  
 IVES PHASE III  
 IVES HILL - JEWELL DRIVE  
 CITY OF WATERTOWN, NY

Project No:	2010-077
Scale:	As Noted
Date:	7/16/10
Drawn By:	THR
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Drwg. No.	

**C502**

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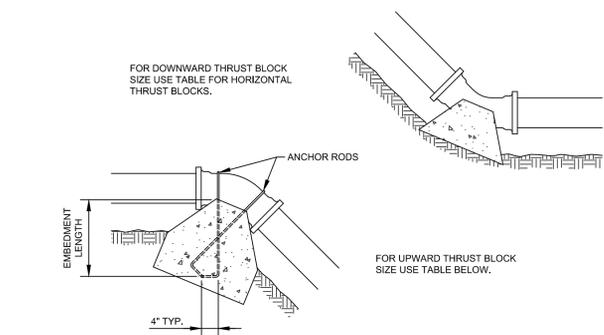


TYP. SECTION AA

NOMINAL PIPE SIZE	150 P.S.I. HYDROSTATIC PRESSURE AGAINST UNDISTURBED SOIL AT 2000 P.S.F. BRNG. CAPACITY					150 P.S.I. HYDROSTATIC PRESS. AGAINST ROCK TRENCH, 10000 P.S.F. BRNG. CAPACITY DESIGN BASIS				
	11-1/4" BEND	22-1/2" BEND	45" BEND	90" BEND	PLUG OR TEE	11-1/4" BEND	22-1/2" BEND	45" BEND	90" BEND	PLUG OR TEE
4"	1.0	1.0	1.0	1.9	1.4	1.0	1.0	1.0	1.0	1.0
6"	1.0	1.1	2.1	4.0	2.8	1.0	1.0	1.0	1.0	1.0
8"	1.0	1.9	3.7	6.8	4.8	1.0	1.0	1.0	1.4	1.0
10"	1.4	2.8	5.6	10.3	7.3	1.0	1.0	1.1	2.1	1.5
12"	2.0	4.0	7.9	14.5	10.3	1.0	1.8	1.6	2.9	2.1
14"	2.7	5.4	10.6	19.5	13.8	1.0	1.1	2.1	3.9	2.8
16"	3.5	7.0	13.6	25.2	17.8	1.0	1.4	2.7	5.0	3.6
18"	4.4	8.7	17.1	31.7	22.4	1.0	1.7	3.4	6.3	4.5
20"	5.4	10.7	21.0	38.9	27.5	1.1	2.1	4.2	7.8	5.5
24"	7.7	15.3	30.0	55.5	39.2	1.5	3.1	6.0	11.1	7.8

- THRUST BLOCKS TO BE 3000 PSI CONCRETE MINIMUM.
- FOR SOIL BEARING CAPACITIES LESS THAN 2000 PSI OR WHERE SOIL HAS BEEN DISTURBED, THE ABOVE TABLE DOES NOT APPLY.
- WHERE TOP OF PIPE LIES BELOW TOP OF ROCK TRENCH, BEARING AREAS AGAINST ROCK TRENCH TABLE MAY BE USED.
- POLYETHYLENE BARRIER TO BE PROVIDED BETWEEN PIPE AND THRUST BLOCK.

1 TYPICAL HORIZONTAL THRUST BLOCK DETAILS  
C503 NOT TO SCALE D124-01

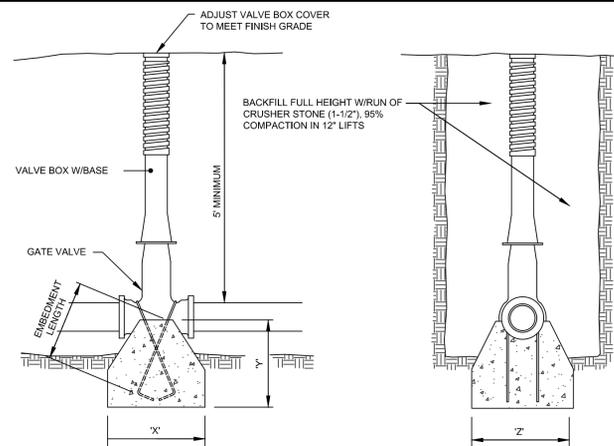


ANCHOR SCHEDULE

NOMINAL PIPE SIZE	11-1/4" BEND			22-1/2" BEND			45" BEND		
	CONCRETE VOLUME (CU. YDS.)	ANCHOR ROD Ø	EMBED. LENGTH	CONCRETE VOLUME (CU. YDS.)	ANCHOR ROD Ø	EMBED. LENGTH	CONCRETE VOLUME (CU. YDS.)	ANCHOR ROD Ø	EMBED. LENGTH
4"	0.2	3/8"	1'-2"	0.4	3/8"	1'-2"	0.6	3/8"	1'-2"
6"	0.4	3/8"	1'-2"	0.7	3/8"	1'-2"	1.3	3/8"	1'-2"
8"	0.6	3/8"	1'-2"	1.2	3/8"	1'-2"	2.3	3/8"	1'-2"
10"	0.9	3/8"	1'-2"	1.7	3/8"	1'-2"	3.4	1/2"	1'-6"
12"	1.3	3/8"	1'-2"	2.5	1/2"	1'-6"	4.8	5/8"	2'-0"
14"	1.7	3/8"	1'-2"	3.3	1/2"	1'-6"	6.5	5/8"	2'-0"
16"	2.2	3/8"	1'-2"	4.3	1/2"	1'-6"	8.4	3/4"	2'-3"
18"	2.7	1/2"	1'-6"	5.4	5/8"	2'-0"	10.6	7/8"	2'-6"
20"	3.3	1/2"	1'-6"	6.6	5/8"	2'-0"	13.0	7/8"	2'-6"
24"	4.7	5/8"	2'-0"	9.4	3/4"	2'-3"	18.5	1-1/8"	3'-6"

- THRUST BLOCK TO BE 3000 PSI CONCRETE MINIMUM.

2 TYPICAL VERTICAL THRUST BLOCK DETAILS  
C503 NOT TO SCALE D126-01

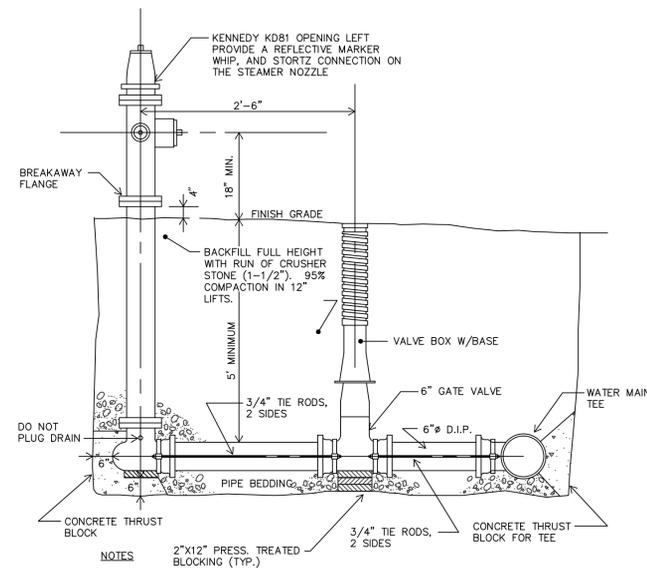


VALVE ANCHOR SCHEDULE

NOMINAL PIPE SIZE	150 P.S.I. HYDROSTATIC PRESSURE AGAINST UNDISTURBED SOIL AT 2000 P.S.F. BRNG. CAPACITY				
	X'	Y'	Z'	ANCHOR ROD Ø	EMBED. LENGTH
2"	1'-3"	1'-3"	1'-3"	3/8"	1'-2"
3"	1'-3"	1'-3"	1'-3"	3/8"	1'-2"
4"	1'-3"	1'-3"	1'-3"	3/8"	1'-2"
6"	1'-6"	1'-8"	1'-8"	1/2"	1'-6"
8"	1'-6"	2'-3"	2'-3"	5/8"	2'-0"
10"	1'-8"	2'-8"	2'-8"	3/4"	2'-3"
12"	1'-9"	3'-4"	3'-4"	7/8"	2'-8"
14"	2'-0"	3'-8"	3'-8"	1"	3'-0"
16"	2'-3"	4'-3"	4'-3"	1-1/8"	3'-6"
18"	2'-6"	4'-8"	4'-8"	1-1/4"	3'-10"

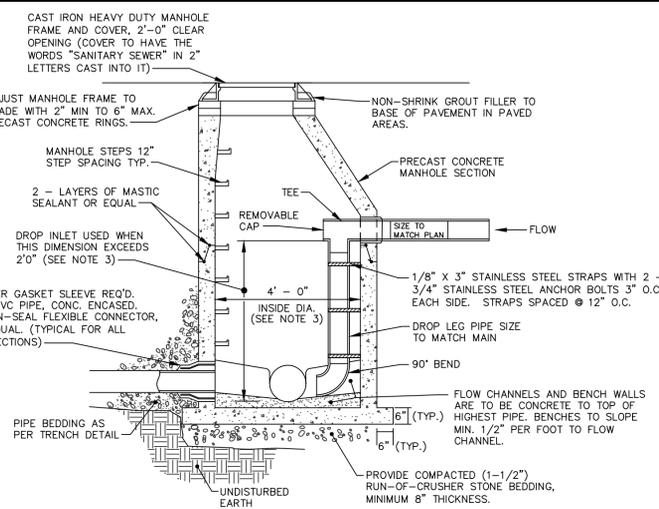
- NOTES:
- THRUST BLOCK CONCRETE TO BE 3000 PSI MINIMUM.
  - FOR SOIL BEARING CAPACITIES LESS THAN 2000 PSF OR WHERE SOIL HAS BEEN DISTURBED, THE ABOVE TABLE DOES NOT APPLY.

3 TYPICAL GATE VALVE DETAIL  
C503 NOT TO SCALE D129-01



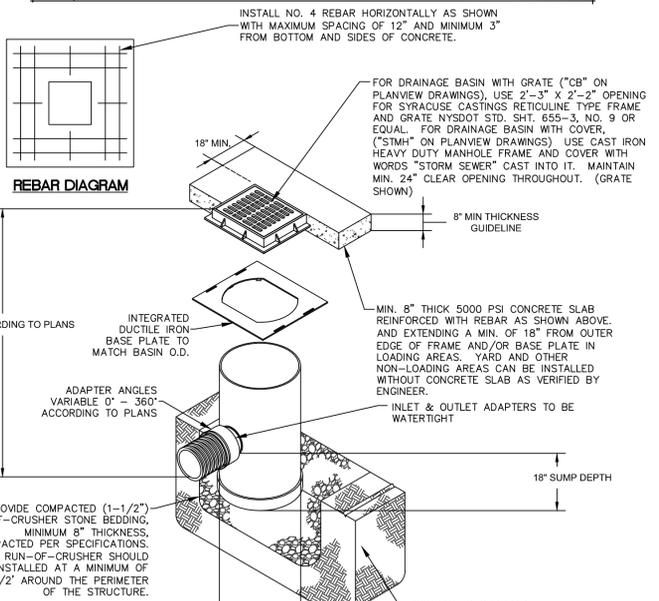
- NOTES:
- HYDRANT NOZZLE TO BE ALIGNED PERPENDICULAR TO STREET.
  - PEA GRAVEL OR NO.3 CRUSHED STONE (1/2 CU. YD.) TO BE PLACED AROUND HYDRANT DRAIN.
  - SEE THRUST BLOCK DETAIL FOR REQUIRED DIMENSIONS.
  - HYDRANT TO CONFORM TO ANSI/AWWA C502-85 STANDARDS FOR DRY-BARREL FIRE HYDRANTS.

4 TYPICAL HYDRANT DETAIL  
C503 NOT TO SCALE W103-01



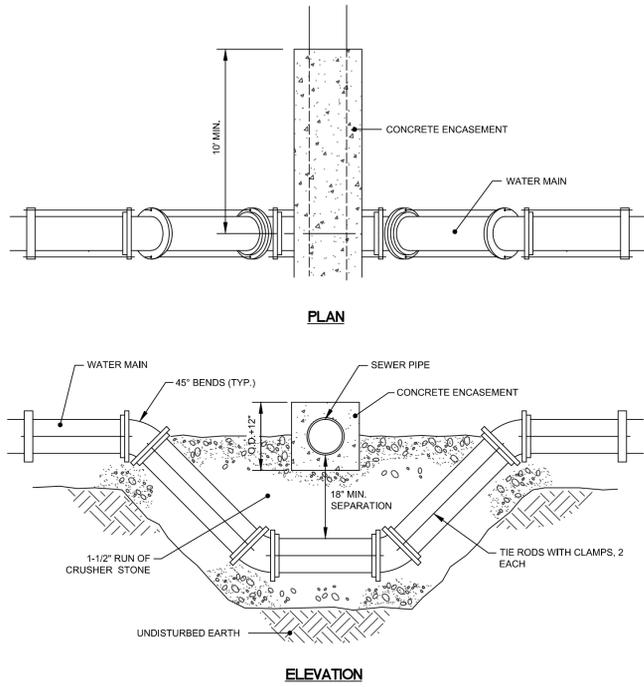
- NOTES:
- ALL MANHOLE SECTIONS TO BE HS-20 LOAD RATING MINIMUM.
  - DAMP-PROOF COATING TO BE APPLIED TO OUTER SURFACE OF MANHOLE SECTIONS.
  - DROP MANHOLES SHALL BE 5' - 0" INSIDE DIAMETER.
  - USE THIS DETAIL FOR EXISTING MANHOLE CONNECTIONS ALSO.

5 TYPICAL SANITARY SEWER MANHOLE AND DROP MANHOLE DETAIL (SSMH)  
C503 NOT TO SCALE

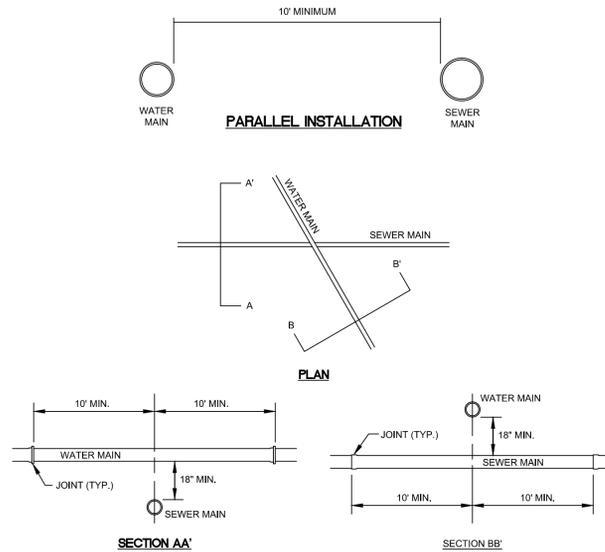


- NOTES:
- TO MEET ASTM D321 REQUIREMENTS THE MINIMUM TRENCH WIDTH SHALL NOT BE LESS THAN THE GREATER OF EITHER THE PIPE'S OUTSIDE DIAMETER PLUS 16" OR THE PIPE'S OUTSIDE DIAMETER TIMES 1.25 PLUS 12" WHICH WOULD BE EQUIVALENT TO 52" FOR A 30" NYLOPLAST DRAIN BASIN.
  - BASE PLATES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
  - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS.
  - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE.

6 PVC DRAINAGE BASIN  
C503 NOT TO SCALE D102-02



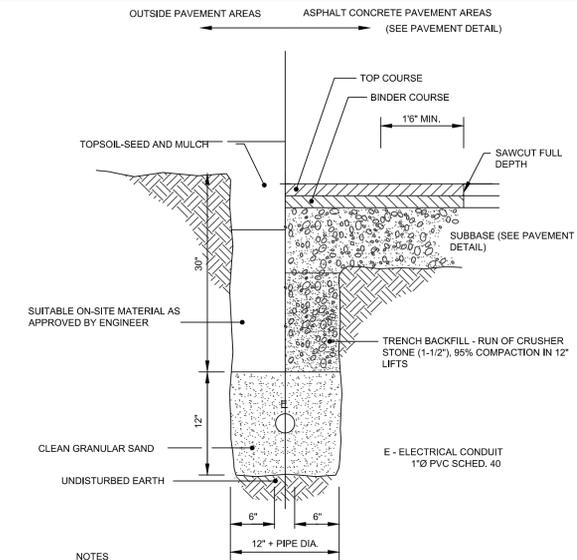
1	<b>TYPICAL WATER MAIN RELOCATION AND SEPARATION DETAIL</b>	
C504	NOT TO SCALE	D117-01



**NOTE**  
CONCRETE ENCASUREMENT TO BE PROVIDED IN ALL CASES WHERE WATER MAIN / SEWER MAIN SEPARATION REQUIREMENTS ARE NOT POSSIBLE.

**PIPELINE CROSSINGS**

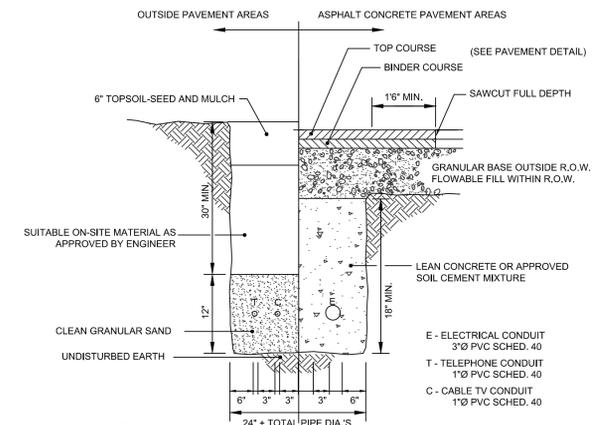
3	<b>TYPICAL SEWER AND WATER MAIN SEPARATION DETAILS</b>	
C504	NOT TO SCALE	D127-01



**NOTES**

- TRENCHES LOCATED ON ROAD SHOULDERS SHALL BE TREATED THE SAME AS UNDER PAVEMENT.
- ELECTRICAL LINE TRENCH TO BE LOCATED A MINIMUM OF 2 FT. FROM COMMUNICATION LINE TRENCH.

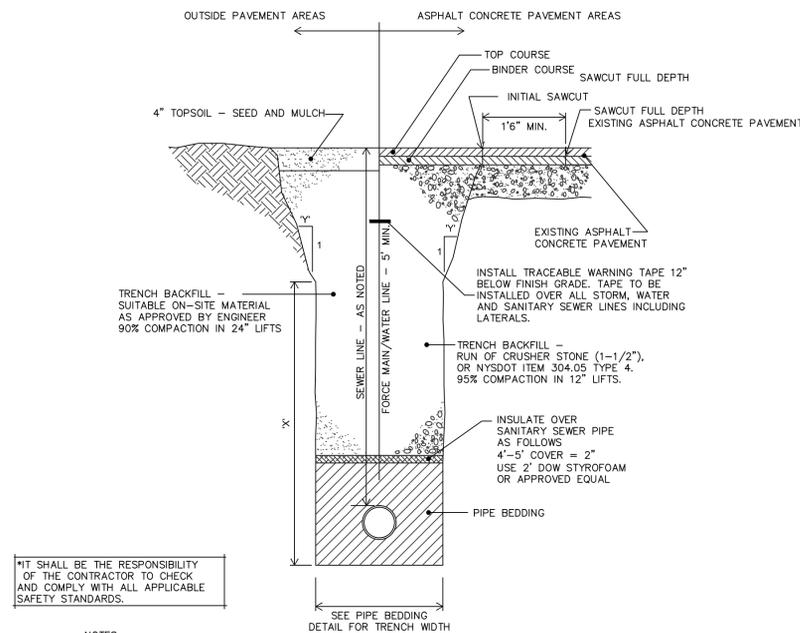
5	<b>TYPICAL ELECTRICAL TRENCH DETAIL</b>	
C504	NOT TO SCALE	E102-01



**NOTES**

- TRENCHES LOCATED ON ROAD SHOULDERS SHALL BE TREATED THE SAME AS UNDER PAVEMENT.
- INSTALLATION REQUIREMENTS TO BE VERIFIED WITH LOCAL UTILITY COMPANY. PORTIONS OR ALL OF PRIMARY SERVICES MAY BE INSTALLED BY LOCAL UTILITY COMPANIES. CONTRACTOR SHALL COORDINATE INSTALLATION WITH UTILITY COMPANIES.

6	<b>TYPICAL UNDERGROUND UTILITY TRENCH DETAIL</b>	
C504	NOT TO SCALE	E103-02

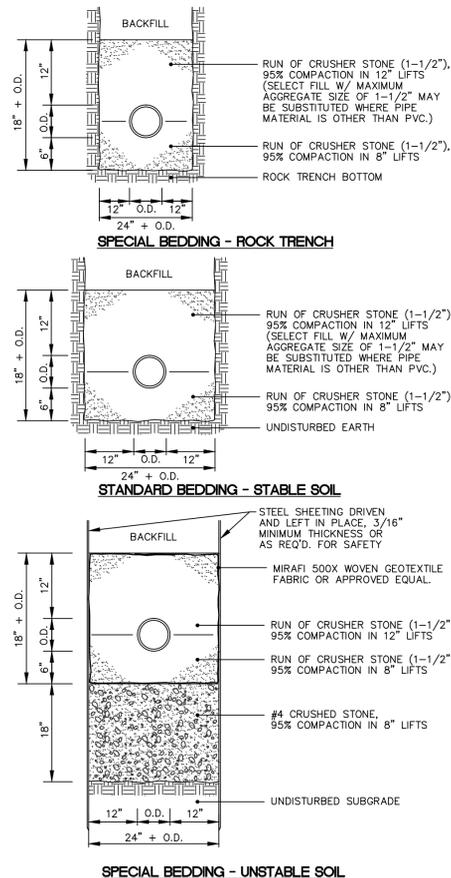


**\*IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CHECK AND COMPLY WITH ALL APPLICABLE SAFETY STANDARDS.**

**NOTES**

- DIMENSIONS "X" AND "Y" SHOWN ABOVE SHALL BE DETERMINED BY CONTRACTOR TO COMPLY WITH O.S.H.A., NEW YORK STATE DEPARTMENT OF LABOR, NEW YORK STATE INDUSTRIAL CODE AND ALL OTHER APPLICABLE SAFETY STANDARDS.
- SAFETY SHEETING OR TRENCH BOX MAY BE USED IN PLACE OF SLOPED TRENCH WALLS.
- SHEETING, WHEN REQUIRED, TO BE CUT OFF AT LEAST 5 FEET BELOW STREET AND A MINIMUM OF 1 FOOT ABOVE TOP OF PIPE. WOOD SHEETING DRIVEN BELOW MID-DIAMETER OF THE PIPE SHALL BE LEFT IN PLACE. STEEL SHEETING DRIVEN BELOW MID-DIAMETER OF THE PIPE SHALL BE WITHDRAWN IF APPROVED IN WRITING BY THE ENGINEER. FOR PVC PIPE ALL SHEETING DRIVEN BELOW MID-DIAMETER SHALL BE LEFT IN PLACE.
- TRENCHES LOCATED ON ROAD SHOULDERS SHALL BE TREATED THE SAME AS UNDER PAVMT.
- CONTRACTOR MAY USE NATIVE MATERIAL AS BACKFILL IF APPROVED BY ENGINEER.

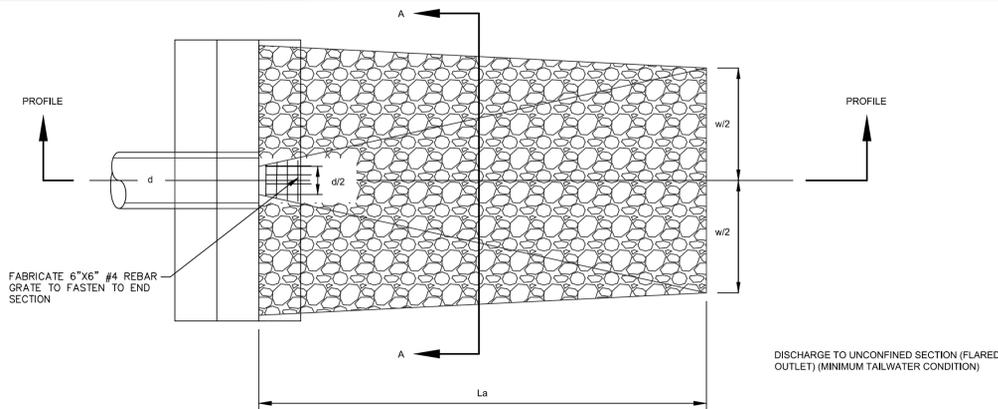
2	<b>TYPICAL UTILITY LINE TRENCH DETAIL AND PAYMENT LIMITS</b>	
C504	NOT TO SCALE	D101-02



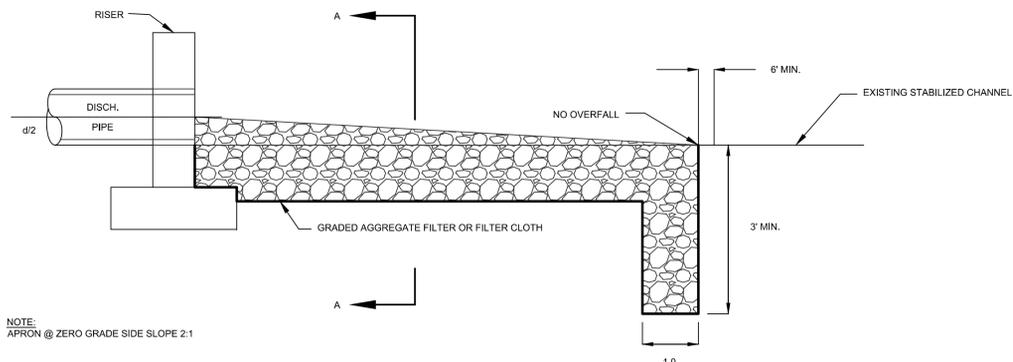
4	<b>TYPICAL PIPE BEDDING DETAILS AND PAYMENT LIMITS</b>	
C504	NOT TO SCALE	U102-01



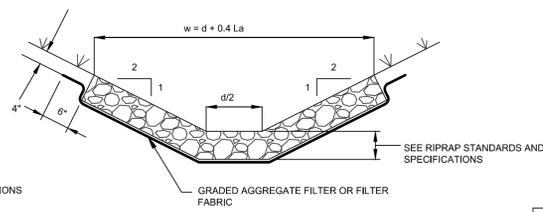
Project No:	2010-077
Scale:	As Noted
Date:	7/16/10
Drawn By:	THR
Designed By:	BJD
Checked By:	
Date Issued:	7/20/10
Drwg. No.	



PLAN VIEW



PROFILE VIEW



CROSS SECTION A-A

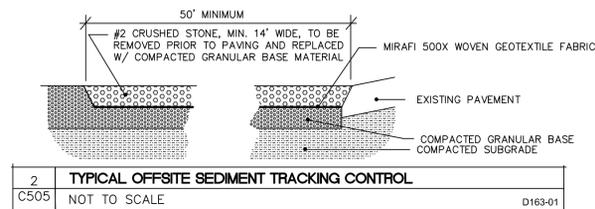
RIPRAP APRON/OUTFALL SPECIFICATIONS

APRON TYPE	D50	Dmax	MIN. BLANKET THICKNESS	DIAMETER OF OUTLET (d)	MIN. APRON LENGTH (La)	WIDTH OF APRON (w)
1	8"	12"	18"	42"	22 FL.	26 FL.
2	6"	9"	14"	42"	8 FL.	12 FL.

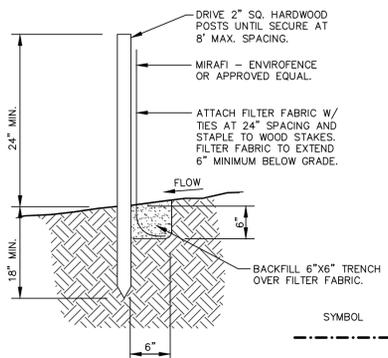
NOTES:

- RIPRAP OUTFALL LOCATIONS ARE SHOWN ON THE CIVIL PLANS.
- THE OUTLET PROTECTION APRON SHALL BE CONSTRUCTED WITH NO SLOPE ALONG ITS LENGTH. THERE SHALL BE NO OVERFALL AT THE END OF THE APRON. THE ELEVATION OF THE DOWNSTREAM END OF THE APRON SHALL BE EQUAL TO THE ELEVATION OF THE RECEIVING CHANNEL OR ADJACENT GROUND.
- THE OUTLET PROTECTION APRON SHALL BE LOCATED SO THAT THERE ARE NO BENDS IN THE HORIZONTAL ALIGNMENT.
- STONE FOR RIPRAP SHALL CONSIST OF FIELD STONE OR ROUGH UNHEWN QUARRY STONE. THE STONE SHALL BE HARD AND ANGULAR AND OF A QUALITY THAT WILL NOT DISINTEGRATE ON EXPOSURE TO WATER OR WEATHERING. THE SPECIFIC GRAVITY OF THE INDIVIDUAL STONES SHALL BE AT LEAST 2.5. RECYCLED CONCRETE EQUIVALENT MAY BE USED PROVIDED IT HAS A DENSITY OF AT LEAST 150 POUNDS PER CUBIC FOOT, AND DOES NOT HAVE ANY EXPOSED STEEL OR REINFORCING BARS.
- RIPRAP SHALL HAVE A FILTER PLACED UNDER IT IN ALL CASES TO PREVENT SOIL MOVEMENT INTO AND THROUGH THE RIPRAP. THE FILTER MAY CONSIST OF A GRAVEL LAYER OR A PLASTIC FILTER CLOTH. THE PLASTIC FILTER CLOTH MAY BE WOVEN OR NON-WOVEN MONOFILAMENT YARNS, AND SHALL MEET THE FOLLOWING BASE REQUIREMENTS: THICKNESS 20-60 MILS, GRAB STRENGTH 90-120 LBS; AND SHALL CONFORM TO ASTM D-1682. GRAVEL FILTER BLANKET, WHEN USED, SHALL BE DESIGNED BY COMPARING PARTICLE SIZES OF THE OVERLYING MATERIAL AND THE BASE MATERIAL. DESIGN CRITERIA IS AVAILABLE IN THE STANDARD AND SPECIFICATION FOR RIPRAP SLOPE PROTECTION ON PAGE 7B.57 OF THE NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL.
- UPON RIPRAP OUTLET INSTALLATION, MAINTENANCE NEEDS ARE VERY LOW. HOWEVER RIPRAP OUTLETS SHOULD BE INSPECTED AFTER HIGH FLOWS FOR EVIDENCE OF SCOUR BENEATH THE RIPRAP OR FOR DISLODGED STONES. REPAIRS SHOULD BE MADE IMMEDIATELY.

1	<b>RIPRAP OUTFALL DETAIL AND SPECIFICATIONS</b>
C505	NOT TO SCALE

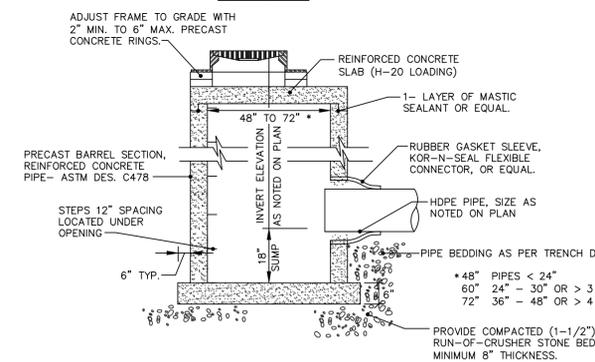
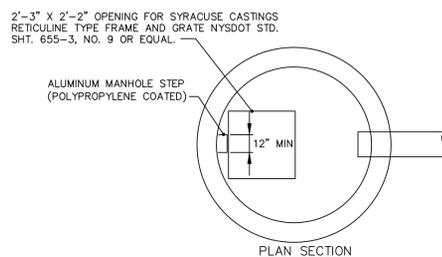


2 TYPICAL OFFSITE SEDIMENT TRACKING CONTROL  
C505 NOT TO SCALE D163-01

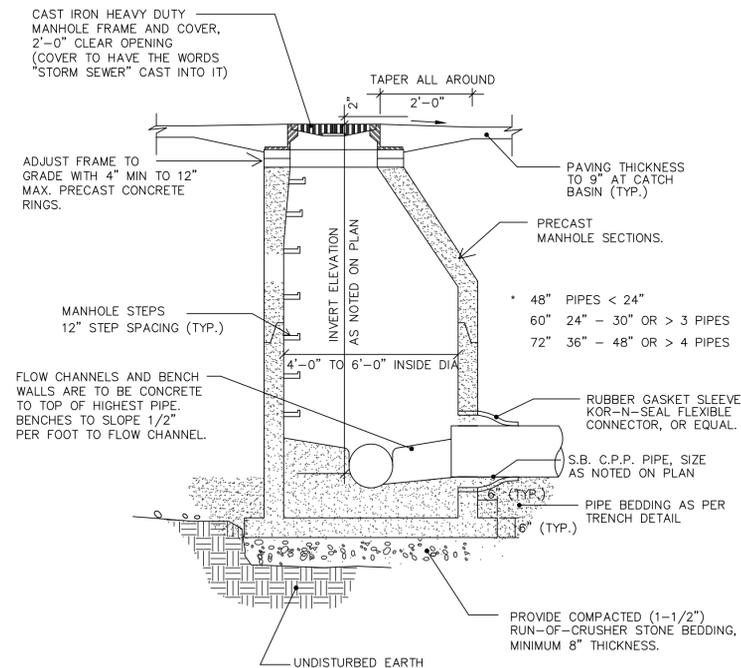


- NOTES:
- SILTATION FENCE TO REMAIN IN PLACE UNTIL LAWNS HAVE BEEN ESTABLISHED AND/OR FINISH SURFACES HAVE BEEN INSTALLED.
  - SILTATION FENCE TO BE CHECKED AND MAINTAINED THROUGHOUT CONSTRUCTION. SILT ACCUMULATIONS SHALL BE REMOVED PERIODICALLY AS REQUIRED.
  - SECTIONS OF FILTER FABRIC TO HAVE 12" OVERLAP AT WOOD STAKES AND STAPLED IN PLACE.

3 TYPICAL SILTATION FENCE DETAIL  
C505 NOT TO SCALE D120-01

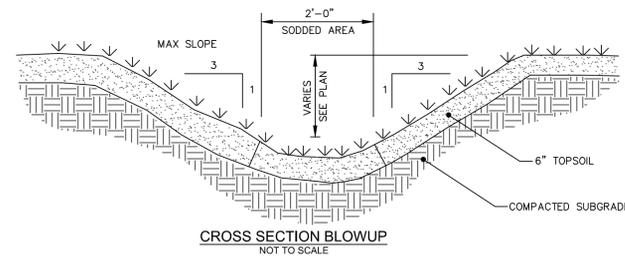


4 TYPICAL PRECAST CATCH BASIN DETAIL (CB)  
C505 NOT TO SCALE D102-02

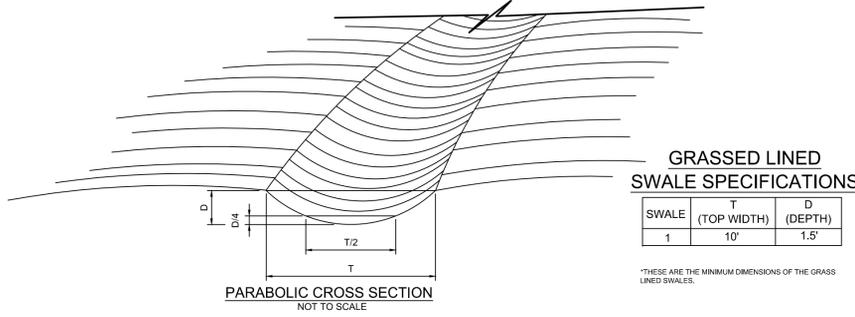


- NOTES:
- ALL MANHOLE SECTIONS TO BE HS-20 LOAD RATING MINIMUM.

5 STORM MANHOLE DETAIL (STMH)  
C505 NOT TO SCALE D101-01



CROSS SECTION BLOWUP  
NOT TO SCALE



GRASSED LINED SWALE SPECIFICATIONS

SWALE	T (TOP WIDTH)	D (DEPTH)
1	10'	1.5'

\*THESE ARE THE MINIMUM DIMENSIONS OF THE GRASS LINED SWALES.

CONSTRUCTION SPECIFICATIONS

- ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED AND DISPOSED OF SO AS NOT TO INTERFERE WITH THE PROPER FUNCTIONING OF THE WATERWAY.
- THE WATERWAY SHALL BE EXCAVATED OR SHAPED TO LINE, GRADE AND CROSS SECTION AS REQUIRED TO MEET THE CRITERIA SPECIFIED HEREIN, AND BE FREE OF BANK PROJECTIONS OR OTHER IRREGULARITIES WHICH WILL IMPEDE NORMAL FLOW.
- FILLS SHALL BE COMPACTED AS NEEDED TO PREVENT UNEQUAL SETTLEMENT THAT WOULD CAUSE DAMAGE IN THE COMPLETE WATERWAY.
- ALL EARTH REMOVED AND NOT NEEDED IN CONSTRUCTION SHALL BE SPREAD OR DISPOSED OF SO THAT IT WILL NOT INTERFERE WITH THE FUNCTIONING OF THE WATERWAY.
- STABILIZATION SHALL BE DONE ACCORDING TO THE APPROPRIATE STANDARD AND SPECIFICATIONS FOR VEGETATIVE PRACTICES.
- SEEDING AND MULCHING MAY BE USED FOR THE ESTABLISHMENT OF THE VEGETATION. IT IS RECOMMENDED THAT, WHEN CONDITIONS PERMIT, TEMPORARY WATERWAYS OR OTHER MEANS SHOULD BE USED TO PREVENT WATER FROM ENTERING THE WATERWAY DURING THE ESTABLISHMENT OF THE VEGETATION.

6 GRASSED WATERWAY  
C505 NOT TO SCALE

ARCHITECTURE, ENGINEERING & LAND SURVEYING P.C.  
220 STERLING STREET  
WATERTOWN, NEW YORK, 13601  
TEL (315) 788-3000  
FAX (315) 788-0669  
www.gymo.com



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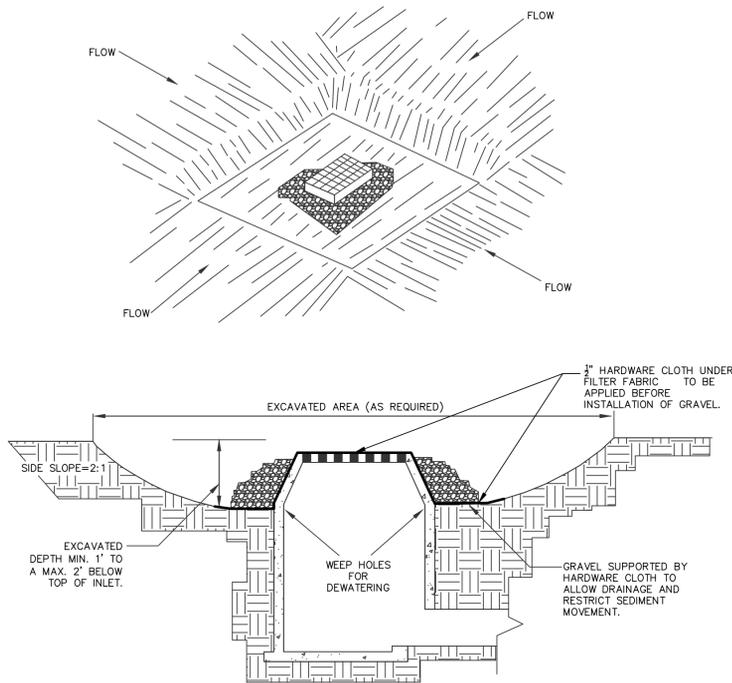
STORM WATER DETAILS  
IVES HILL PHASE III  
IVES HILL - JEWELL DRIVE  
CITY OF WATERTOWN, NY

Project No:	2010-077
Scale:	As Noted
Date:	7/16/10
Drawn By:	THR
Designed By:	BJD
Checked By:	
Date Issued:	7/20/10
Drwg. No.	

C505

FOR APPROVALS ONLY  
NOT FOR CONSTRUCTION

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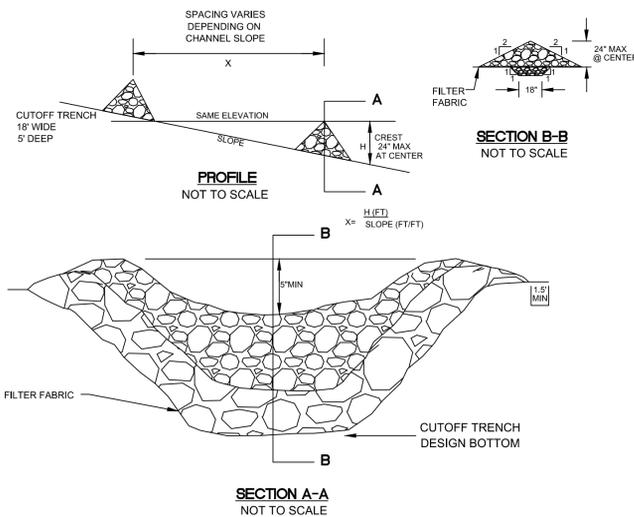


**CONSTRUCTION SPECIFICATIONS:**

- CLEAR THE AREA OF ALL DEBRIS THAT WILL HINDER EXCAVATION.
- GRADE APPROACH TO THE INLET UNIFORMLY AROUND THE BASIN.
- WEEP HOLES SHALL BE PROTECTED BY GRAVEL.
- UPON STABILIZATION OF CONTRIBUTING DRAINAGE AREA, SEAL WEEP HOLES, FILL BASIN WITH STABLE SOIL TO FINAL GRADE, COMPACT IT PROPERLY AND STABILIZE WITH PERMANENT SEEDING.

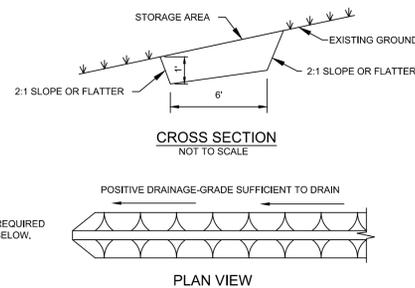
MAXIMUM DRAINAGE AREA 1 ACRE

1	<b>EXCAVATED DROP INLET PROTECTION DETAIL</b>
C506	NOT TO SCALE



NOTE: USE GRADED STONE 2-9" IN SIZE (NYSDOT LIGHT STONE FILL MEETS THESE REQUIREMENTS).

3	<b>TYPICAL CHECK DAM DETAIL</b>
C506	NOT TO SCALE
	D117-01



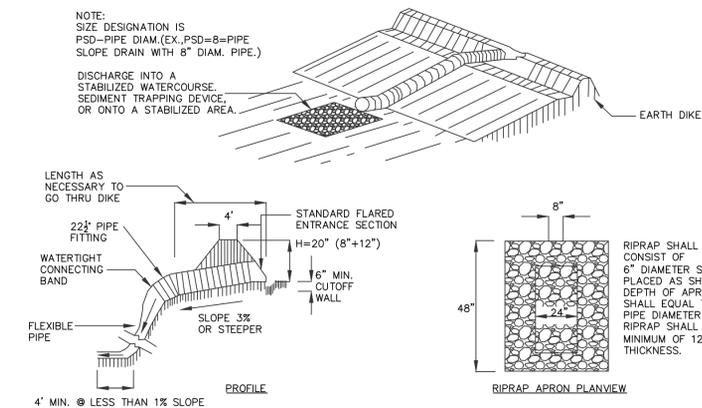
**CONSTRUCTION SPECIFICATIONS**

- ALL TEMPORARY SWALES SHALL HAVE UNINTERRUPTED POSITIVE GRADE TO AN OUTLET.
- DIVERTED RUN-OFF FROM A DISTURBED AREA SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE.
- DIVERTED RUN-OFF FROM AN UNDISTURBED AREA SHALL OUTLET DIRECTLY INTO AN UNDISTURBED STABILIZED AREA AT NON-EROSIVE VELOCITY.
- ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED AND DISPOSED OF SO AS NOT TO INTERFERE WITH THE PROPER FUNCTIONING OF THE SWALE.
- THE SWALE SHALL BE EXCAVATED OR SHAPED TO LINE, GRADE, AND CROSS SECTION AS REQUIRED TO MEET THE CRITERIA SPECIFIED HEREIN AND BE FREE OF BANK PROJECTIONS OR OTHER IRREGULARITIES WHICH WILL IMPEDE NORMAL FLOW.
- FILLS SHALL BE COMPACTED BY EARTH MOVING EQUIPMENT.
- ALL EARTH REMOVED AND NOT NEEDED FOR CONSTRUCTION SHALL BE PLACED SO THAT IT WILL NOT INTERFERE WITH THE FUNCTIONING OF THE SWALE.
- STABILIZATION SHALL BE AS PER THE FLOW CHANNEL STABILIZATION CHART BELOW:

**STABILIZATION**

TYPE OF CHANNEL GRADE TREATMENT	FLOW CHANNEL A (<5 AC.)	FLOW CHANNEL B (5-10 AC.)	
		A (<5 AC.)	B (5-10 AC.)
1	0.5-3.0%	SEED & STRAW MULCH	SEED & STRAW MULCH
2	3.1-5.0%	SEED & STRAW MULCH	SEED AND COVER WITH JUTE OR EXCELSIOR, SOD, OR LINED WITH 2" STONE
3	5.1-8.0%	SEED AND COVER WITH JUTE OR EXCELSIOR, SOD, OR LINED WITH 2" STONE	LINE WITH 4"-8" STONE OR RECYCLED CONCRETE EQUIVALENT
4	8.1-20%	LINE WITH 4"-8" STONE OR RECYCLED CONCRETE EQUIVALENT	ENGINEERING DESIGN

5	<b>TEMPORARY SWALE</b>
C506	NOT TO SCALE

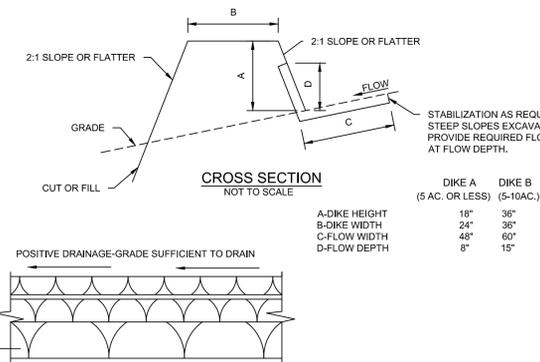


**CONSTRUCTION SPECIFICATIONS:**

- THE INLET PIPE SHALL HAVE A SLOPE OF 3% OR STEEPER.
- THE TOP OF THE EARTH DIKE OVER THE INLET PIPE AND THOSE DIKES CARRYING WATER TO THE PIPE SHALL BE AT LEAST 1' HIGHER AT ALL POINTS THAN THE TOP OF THE INLET PIPE.
- THE INLET PIPE SHALL BE HDPE PIPE WITH WATERTIGHT CONNECTING BANDS.
- THE FLEXIBLE TUBING SHALL BE THE SAME DIAMETER AS THE INLET PIPE AND SHALL BE CONSTRUCTED OF A DURABLE MATERIAL WITH HOLD-DOWN GROMMETS SPACED AT 10' ON CENTER.
- THE FLEXIBLE TUBING SHALL BE SECURELY FASTENED TO THE CORRUGATED METAL PIPE WITH METAL STRAPPING OR WATERTIGHT CONNECTING COLLARS.
- THE FLEXIBLE TUBING SHALL BE SECURELY ANCHORED TO THE SLOPE BY STAKING AT THE GROMMETS PROVIDED.
- A RIPRAP APRON SHALL BE PROVIDED AT THE OUTLET. THIS SHALL CONSIST OF 6" DIAMETER STONE PLACED AS SHOWN.
- THE SOIL AROUND AND UNDER INLET PIPE AND ENTRANCE SECTION SHALL BE HAND TAMPED IN 4" LIFTS TO THE TOP OF THE EARTH DIKE.
- FOLLOW-UP INSPECTION AND ANY NEEDED MAINTENANCE SHALL BE PERFORMED AFTER EACH STORM.

\*DRAINAGE AREA MUST NOT EXCEED 5 ACRES.

2	<b>PIPE SLOPE DRAIN DETAIL</b>
C506	NOT TO SCALE



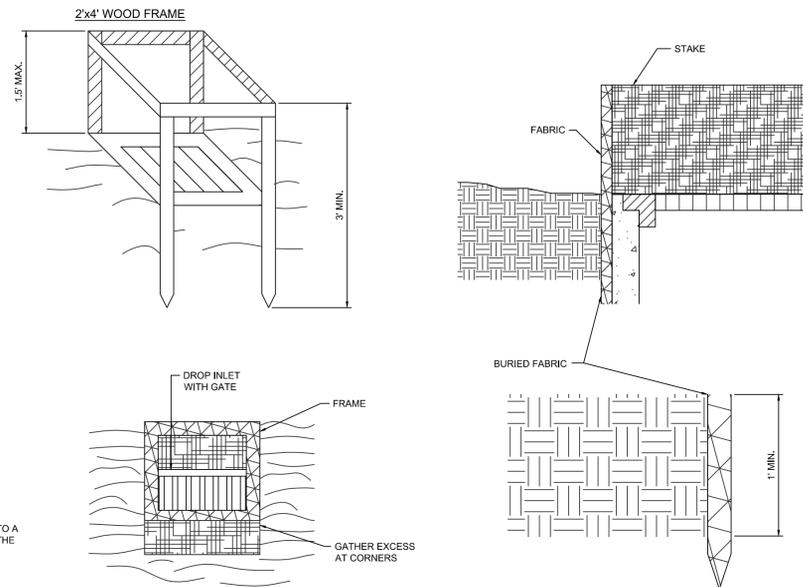
**CONSTRUCTION SPECIFICATIONS**

- ALL DIKES SHALL BE COMPACTED BY EARTH-MOVING EQUIPMENT.
- ALL DIKES SHALL HAVE POSITIVE DRAINAGE TO AN OUTLET.
- TOP WIDTH MAY BE WIDER AND SIDE SLOPES BE FLATTER IF DESIRED TO FACILITATE CROSSING BY CONSTRUCTION TRAFFIC.
- FIELD LOCATION SHOULD BE ADJUSTED AS NEEDED TO UTILIZE A STABILIZED SAFE OUTLET.
- EARTH DIKES SHALL HAVE AN OUTLET THAT FUNCTIONS WITH A MINIMUM OF EROSION, RUN-OFF SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE SUCH AS A SEDIMENT TRAP OR SEDIMENT BASIN WHERE EITHER THE DIKE CHANNEL OR THE DRAINAGE AREA ABOVE THE DIKE ARE NOT ADEQUATELY STABILIZED.
- STABILIZATION SHALL BE: (A) IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR SEED AND STRAW MULCH IF NOT IN SEEDING SEASON. (B) FLOW CHANNEL AS PER CHART BELOW.

**STABILIZATION**

TYPE OF CHANNEL GRADE TREATMENT	FLOW CHANNEL A (<5 AC.)	FLOW CHANNEL B (5-10 AC.)	
		A (<5 AC.)	B (5-10 AC.)
1	0.5-3.0%	SEED & STRAW MULCH	SEED & STRAW MULCH
2	3.1-5.0%	SEED & STRAW MULCH	SEED AND COVER WITH JUTE OR EXCELSIOR, SOD, OR LINED WITH 2" STONE
3	5.1-8.0%	SEED AND COVER WITH JUTE OR EXCELSIOR, SOD, OR LINED WITH 2" STONE	LINE WITH 4"-8" STONE OR RECYCLED CONCRETE EQUIVALENT
4	8.1-20%	LINE WITH 4"-8" STONE OR RECYCLED CONCRETE EQUIVALENT	ENGINEERING DESIGN

4	<b>TEMPORARY EARTH DIKE</b>
C506	NOT TO SCALE



**CONSTRUCTION SPECIFICATIONS**

- FILTER FABRIC SHALL HAVE AN EOS OF 40-85. BURLAP MAY BE USED FOR SHORT TERM APPLICATIONS.
- CUT FABRIC FROM A CONTINUOUS ROLL TO ELIMINATE JOINTS. IF JOINTS ARE NEEDED THEY WILL BE OVERLAPPED TO THE NEXT STAKE.
- STAKE MATERIALS WILL BE STANDARD 2"x4" WOOD OR EQUIVALENT. METAL WITH A MINIMUM LENGTH OF 3 FEET.
- SPACE STAKES EVENLY AROUND INLET 3 FEET APART AND DRIVE A MINIMUM 18 INCHES DEEP. SPANS GREATER THAN 3 FEET MAY BE BRIDGED WITH THE USE OF WIRE MESH BEHIND THE FILTER FABRIC FOR SUPPORT.
- FABRIC SHALL BE EMBEDDED 1 FOOT MINIMUM BELOW GROUND AND BACKFILLED. IT SHALL BE SECURELY FASTENED TO THE STAKES AND FRAME.
- A 2"x4" WOOD FRAME SHALL BE COMPLETED AROUND THE CREST OF THE FABRIC FOR OVER FLOW STABILITY.

MAXIMUM DRAINAGE AREA 1 ACRE.

6	<b>FILTER FABRIC DROP INLET PROTECTION DETAIL</b>
C506	NOT TO SCALE

Project No:	2010-077
Scale:	As Noted
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Designed By:	BJD
Checked By:	
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Drwg. No.	