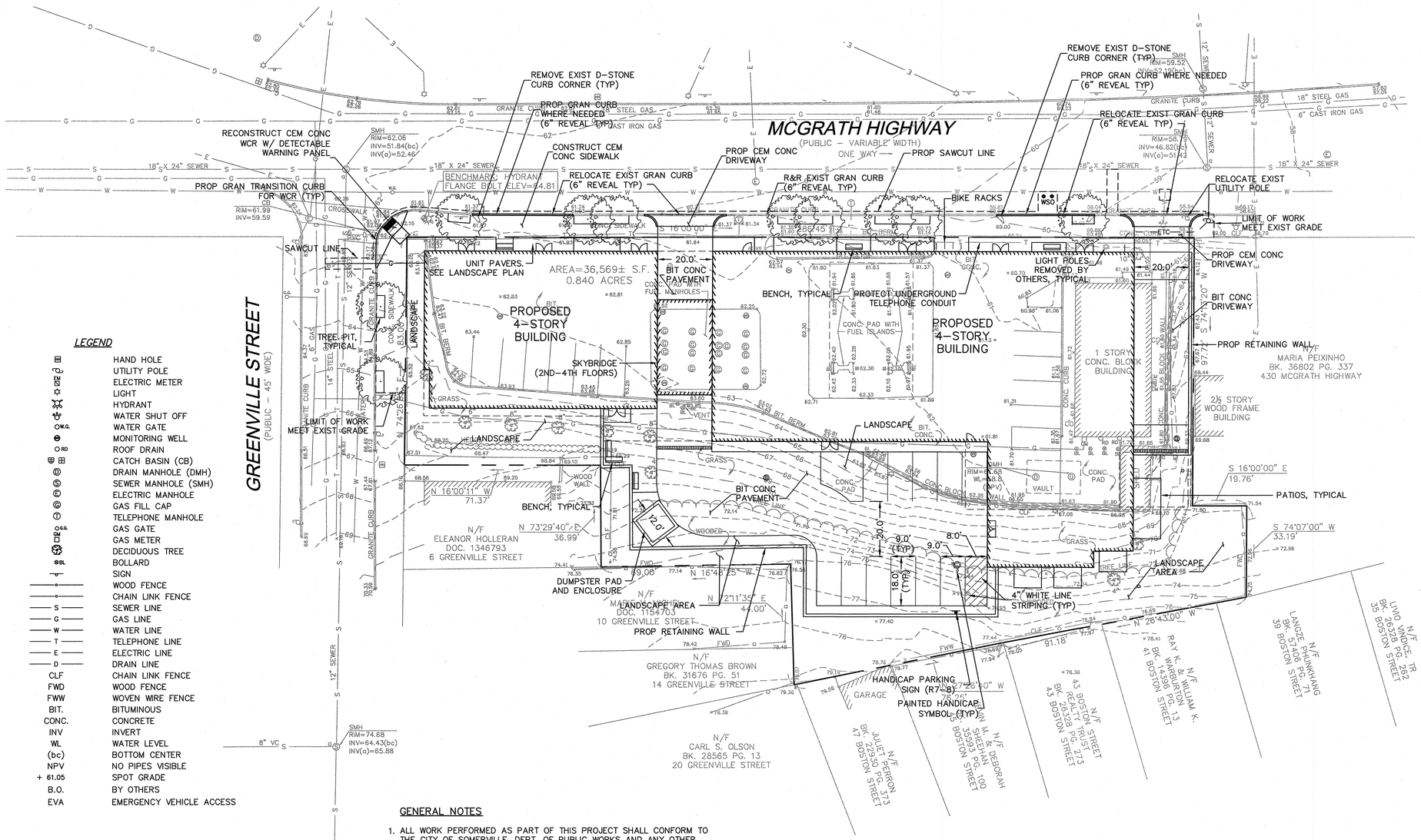


LEGEND

	HAND HOLE
	UTILITY POLE
	ELECTRIC METER
	LIGHT
	HYDRANT
	WATER SHUT OFF
W.G.	WATER GATE
	MONITORING WELL
RD	ROOF DRAIN
	CATCH BASIN (CB)
	DRAIN MANHOLE (DMH)
	SEWER MANHOLE (SMH)
	ELECTRIC MANHOLE
	GAS FILL CAP
	TELEPHONE MANHOLE
G.G.	GAS GATE
	GAS METER
	DECIDUOUS TREE
BL	BOLLARD
	SIGN
	WOOD FENCE
	CHAIN LINK FENCE
S	SEWER LINE
G	GAS LINE
W	WATER LINE
T	TELEPHONE LINE
E	ELECTRIC LINE
D	DRAIN LINE
CLF	CHAIN LINK FENCE
FWD	WOOD FENCE
FWW	WOVEN WIRE FENCE
BIT.	BITUMINOUS
CONC.	CONCRETE
INV	INVERT
WL	WATER LEVEL
(bc)	BOTTOM CENTER
NPV	NO PIPES VISIBLE
+ 61.05	SPOT GRADE
B.O.	BY OTHERS
EVA	EMERGENCY VEHICLE ACCESS

LOCUS TITLE INFORMATION

434 MCGRATH HIGHWAY

OWNER: ARDPROP, INC.

DEED REFERENCE: BK. 14406 PG. 122

ASSESSORS: MAP 80, BLOCK B, LOTS 1, 4 & 27

GENERAL NOTES

1. ALL WORK PERFORMED AS PART OF THIS PROJECT SHALL CONFORM TO THE CITY OF SOMERVILLE, DEPT. OF PUBLIC WORKS AND ANY OTHER AGENCY WITH AUTHORITY IN THIS AREA.
2. CONTRACTOR TO MAINTAIN WORK AREA IN A CLEAN CONDITION. NO CONSTRUCTION DEBRIS SHALL BE ALLOWED TO ACCUMULATE WITHIN THE WORKSITE AND NO DIRT, GRAVEL, ETC. SHALL BE ALLOWED TO ACCUMULATE ON THE PUBLIC RIGHT-OF-WAY.
3. AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.
4. RECONSTRUCTED SIDEWALK CROSS SLOPE IS TO BE 1.5% PITCH TO THE ROADWAY WITH TOLERANCE FOR CONSTRUCTION OF 0.5%±.

NORTH

Design Consultants, Inc.
CIVIL ENGINEERS and LAND SURVEYORS
120 Middlesex Avenue, Suite 20
Somerville, MA 02145
617-776-3350 617-776-7110

PROJECT TEAM

THE COMMONS AT PROSPECT HILL

434 McGRATH HIGHWAY
SOMERVILLE, MA

PROJECT INFO

REV	DESCRIPTION	DATE

COMMONWEALTH OF MASSACHUSETTS
WAYNE A. KEEFNER
CIVIL
No. 41313
REGISTERED PROFESSIONAL ENGINEER
8-27-14

STAMP:

LAYOUT AND MATERIALS PLAN

SHEET NAME:

C1.0

SHT NO:

DR BY: RLB/SSW
CHK BY: WAK
PROJ NO: 2013-009
DATE: AUGUST 27, 2014
SCALE: 1" = 20'

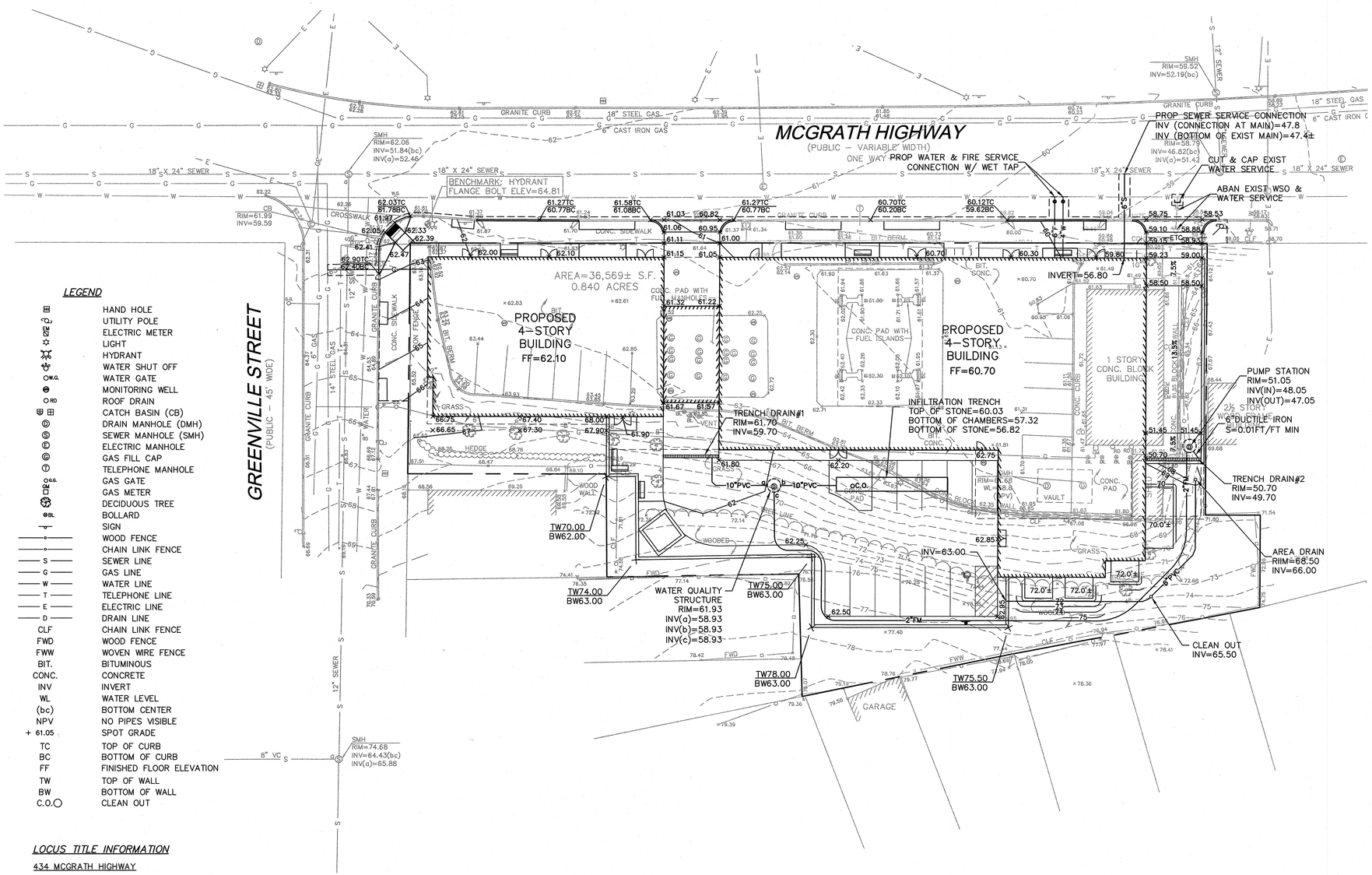
PIPE MATERIALS:

DOMESTIC WATER SERVICE: 4"INCH DUCTILE IRON CEMENT LINED (DICL) CLASS 52
FIRE SERVICE: 6" INCH DUCTILE IRON CEMENT LINED (DICL) CLASS 52

ALL WATER LINES SHALL HAVE A MINIMUM OF FIVE (5) FEET OF COVER

SEWER: 6 INCH PVC SERVICE (MINIMUM SLOPE= 0.010)
ASTM D3034–SDR 35

STORM DRAIN: 10" INCH PVC ASTM D3034–SDR 35
(UNLESS OTHERWISE NOTED)
MINIMUM SLOPE= 0.010
2–INCH PVC ASTM D3034–SDR 35 (PRESSURE)



LEGEND

	HAND HOLE
	UTILITY POLE
	ELECTRIC METER
	LIGHT
	HYDRANT
W.S.	WATER SHUT OFF
	WATER GATE
	MONITORING WELL
RD	ROOF DRAIN
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BIT.	BITUMINOUS
CONC.	CONCRETE
INV	INVERT
WL	WATER LEVEL
(bc)	BOTTOM CENTER
NPV	NO PIPES VISIBLE
+ 61.05	SPOT GRADE
TC	TOP OF CURB
BC	BOTTOM OF CURB
FF	FINISHED FLOOR ELEVATION
TW	TOP OF WALL
BW	BOTTOM OF WALL
C.O.	CLEAN OUT

LOCUS TITLE INFORMATION

434 MCGRATH HIGHWAY

OWNER: ARDPROP, INC.

DEED REFERENCE: BK. 14406 PG. 122

ASSESSORS: MAP 80, BLOCK B, LOTS 1, 4 & 27

UTILITY & DRAINAGE NOTES

1. THE LOCATION OF AND SIZE OF BURIED UTILITIES ARE THE RESULT OF SURFACE EVIDENCE AS LOCATED BY FIELD SURVEY BY DESIGN CONSULTANTS INC., PLANS OF RECORD & PLANS FROM RESPECTIVE UTILITY COMPANIES.
2. THIS PLAN DOES NOT NECESSARILY DEPICT THE EXACT LOCATION AND SIZE OF ALL UTILITIES WHICH MAY EXIST AT THIS TIME INSIDE OR OUTSIDE OF EXISTING OR PROPOSED BUILDINGS, ON THE SUBJECT PROPERTY, WITHIN THE STREET ROW, OR ON ABUTTING LOTS.
3. CONTACT DIG–SAFE AT 1–888–344–7233 OR 1–800–322–4844 AT LEAST 72 HOURS PRIOR TO EXCAVATION. THE CITY OF SOMERVILLE MUNICIPAL UTILITIES (WATER, SEWER, & DRAIN) ARE NOT PART OF DIG–SAFE. CONTACT THE CITY OF SOMERVILLE FOR THE MARKING OF SOMERVILLE MUNICIPAL UTILITIES.
4. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES SHOWN ARE APPROXIMATE AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL FIELD VERIFY THE SIZE AND EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.
5. ALL EXISTING UTILITY SERVICE CONNECTIONS SHALL BE ABANDONED UNLESS NOTED OTHERWISE. CUTTING AND CAPPING OF DESIGNATED WATER AND SEWER SERVICES SHALL OCCUR AT THE MAIN IN THE STREET, BY THE CONTRACTOR, IN ACCORDANCE WITH THE CITY OF SOMERVILLE STANDARDS. THE PROPOSED GAS, ELECTRIC AND/OR CATV INSTALLATION AND ABANDONMENT OF EXISTING CONNECTIONS SHALL BE COORDINATED BY THE CONTRACTOR WITH THE RESPECTIVE COMPANIES.
6. FINAL DEMARCATION POINTS FOR GAS, ELECTRIC, TELEPHONE, AND COMMUNICATION SERVICE ENTRANCES ARE SUBJECT TO APPROVALS OF EACH PROVIDER.
7. ALL UTILITIES SHOWN ON THIS SITE ARE TO THE EXTERIOR OF THE BUILDING FOUNDATION ONLY. UTILITIES THROUGH THE FOUNDATION AND INSIDE THE BUILDING ARE THE RESPONSIBILITY OF THE MECHANICAL ENGINEER. SEE MECHANICAL ENGINEERING PLANS.
8. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING AND RECORDING THE EXACT LOCATION OF ALL PROPOSED UTILITY CONNECTIONS.
9. NEW WATER SERVICES MUST BE LEFT SHUT OFF AT THE MAIN ON THE STREET UNTIL ACTIVATED BY CITY OF SOMERVILLE.
10. PERCOLATION TESTS WILL BE REQUIRED TO DETERMINE SUBSURFACE SOIL TYPES AND ESTABLISH MEAN HIGH GROUNDWATER ELEVATION PRIOR TO ORDERING AND INSTALLATION OF STORMWATER MANAGEMENT SYSTEM COMPONENTS. ADJUSTMENTS TO SYSTEM MAY BE REQUIRED PER TEST RESULTS.
11. THE CONTRACTOR SHALL SUPPLY ALL PIPING FOR THE UTILITY SERVICES AND SHALL SUPPLY ALL ASSOCIATED APPURTENANCES, FITTING AND VALVES UNLESS NOTED OTHERWISE. THE CONTRACTOR SHALL PERFORM ALL WET AND DRY TAPS AS PART OF HIS/HER CONTRACT.
12. CITY OF SOMERVILLE RESERVES THE RIGHT TO INSPECT ALL FACILITIES DISCHARGING TO THE CITY OF SOMERVILLE DRAIN AND SEWER SYSTEMS. A DYE TEST SHALL BE PERFORMED PRIOR TO THE ISSUANCE OF AN OCCUPANCY PERMIT.
13. PRIOR TO CONSTRUCTION OF NEW SANITARY SEWER AND STORM DRAIN LINES, CONTRACTOR SHALL PERFORM TEST PITS AT LOCATIONS OF EXISTING LATERAL CONNECTIONS FOR SANITARY SEWER AND STORM DRAINS TO CONFIRM INVERTS OF LATERALS. ANY DISCREPANCIES ARE TO BE REPORTED TO THE ENGINEER IMMEDIATELY.
14. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION SHALL BE FURNISHED TO THE ENGINEER FOR RESOLUTION OF THE CONFLICT.
15. TRENCH AREAS FOR THE CONSTRUCTION OF THE UNDERGROUND UTILITIES ARE TO BE REPATCHED WITH SAME MATERIAL AT THE SAME DEPTH AS THE EXISTING MATERIAL. THE AREAS OF TRENCHING SHALL BE NEATLY SAW–CUT AND THE NEW REPATCHING MATERIAL SHALL BE PROPERLY SEALED IN ACCORDANCE WITH THE CITY OF SOMERVILLE MUNICIPAL STANDARDS.
16. DURING EXCAVATION AND CONSTRUCTION OF PIPES AND STRUCTURES, TRENCHES MUST BE ADEQUATELY BRACED AND PROTECTED AGAINST CAVE–IN.
17. NO TRENCHES ARE ALLOWED TO REMAIN OPEN OVERNIGHT. ALL TRENCHES SHALL BE BACKFILLED AT THE END OF THE WORK DAY OR COVERED WITH STEEL PLATES PER 520 CMR 14.00 EXCAVATION AND TRENCH SAFETY. IF STEEL PLATES ARE USED, THE TOTAL LENGTH OF PLATES IN THE TRAVELED WAY SHALL LIMITED TO 50'.
18. THE SANITARY SEWER SERVICE SHALL BE LOCATED BY THE CONTRACTOR DURING DEMOLITION AND CUT AND CAPPED AT THE MAIN.

0 10 20 40 Feet
1:240

NORTH

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PROJECT TEAM

THE COMMONS AT PROSPECT HILL

434 McGRATH HIGHWAY
SOMERVILLE, MA

PROJECT INFO

REV	DESCRIPTION	DATE

COMMONWEALTH OF MASSACHUSETTS
WAYNE A. KEEFNER
CIVIL
No. 41313
REGISTERED PROFESSIONAL ENGINEER
8-27-14

STAMP:

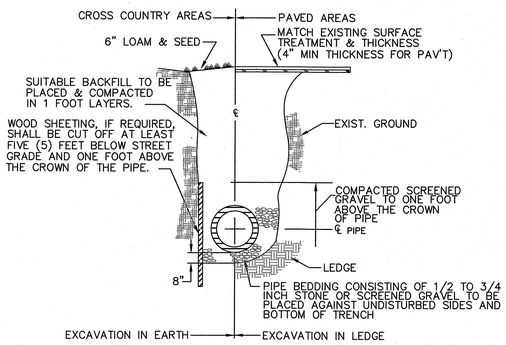
UTILITY & GRADING PLAN

SHEET NAME:

C2.0

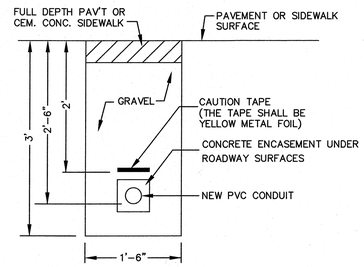
SHT NO:

DR BY: RLB
CHK BY: WAK
PROJ NO: 2013-009
DATE: AUGUST 27, 2014
SCALE: 1" = 20'



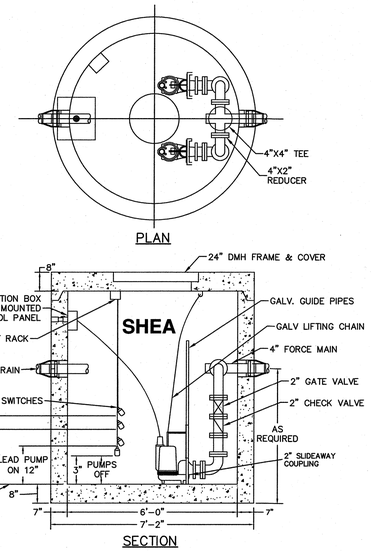
TRENCH EXCAVATION

NOT TO SCALE



CONDUIT

NOT TO SCALE

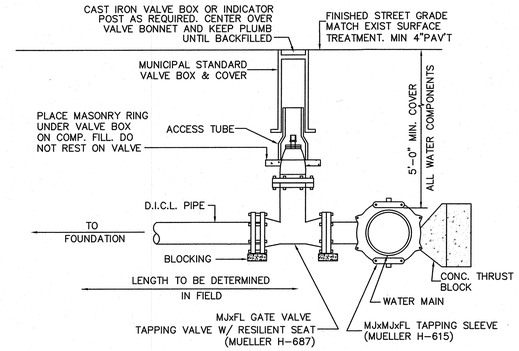


NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. REINFORNCED STEEL CONFORMS TO LATEST ASTM A185
3. BUTYL RESIN SECTION JOINT CONFORMSTO LATEST ASTM C443 SPEC
4. SET CONTROLLER TO ALTERNATE LEAD PUMPS.

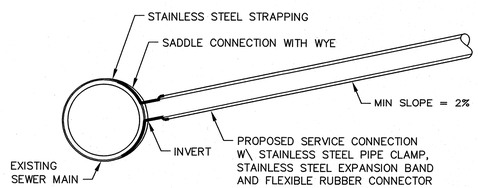
PUMP STATION DUPLEX PUMP PACKAGE

NOT TO SCALE



WATER SERVICE CONNECTION

NOT TO SCALE

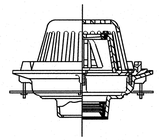


NOTE

IF AN EXISTING WYE CANNOT BE LOCATED IN THE FIELD, THE SEWER CONNECTION SHALL BE MADE THRU A NEW WYE CONNECTED W/ A STRAP-ON SADDLE.

SANITARY SEWER SERVICE SADDLE CONNECTION TO EXISTING SEWER

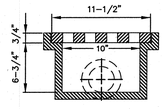
NOT TO SCALE



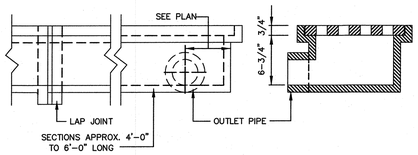
ROOF DRAIN LIMITS DISCHARGE AT DESIRED RATE.

JR. SMITH RAINTROL

NOT TO SCALE

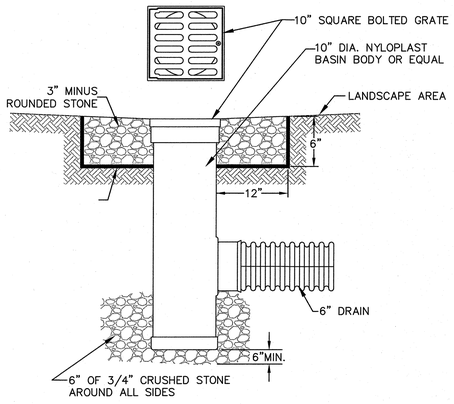


GRATED



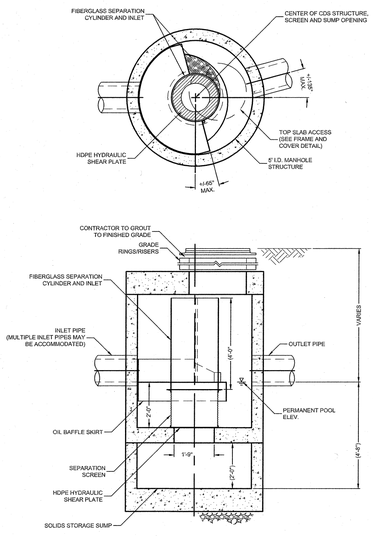
TRENCH DRAIN - SIDE OUTLETS

NOT TO SCALE



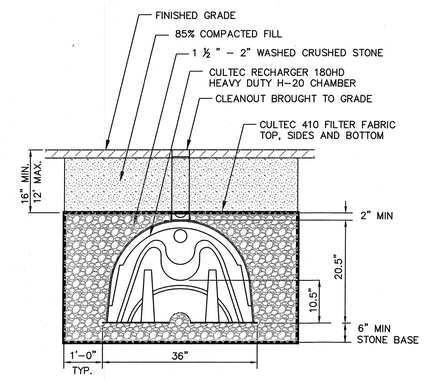
AREA DRAIN

NOT TO SCALE



CONTECH CDS WATER QUALITY INLET

NOT TO SCALE



CULTEC RECHARGER 180HD CHAMBER

NOT TO SCALE

Design Consultants, Inc.
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120 Middlesex Avenue, Suite 20
Somerville, MA 02145
617-776-3350p 617-776-5710f

PROJECT TEAM

THE COMMONS AT PROSPECT HILL
434 McGRATH HIGHWAY
SOMERVILLE, MA

PROJECT INFO

REV	DESCRIPTION	DATE

COMMONWEALTH OF MASSACHUSETTS
WAYNE A. KEEFNER
CIVIL
No. 41313
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8-27-14

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DETAIL SHEET

SHEET NAME:

C3.0

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DR BY: SSW
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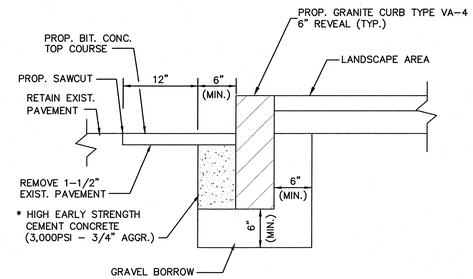
SCALE: N.T.S.

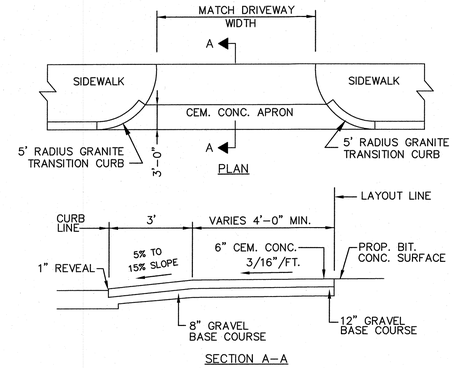


NOTES:

* HIGH EARLY STRENGTH CONCRETE BASE COURSE SHALL BE INCLUDED IN THE LINEAR FOOT PRICE OF GRANITE CURB.

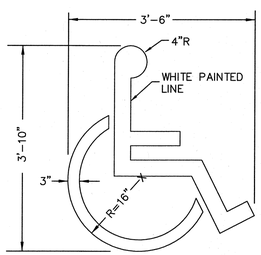
GRANITE CURB IN EXISTING PAVEMENT

NOT TO SCALE



DRIVEWAY APRON CONSTRUCTION

NOT TO SCALE



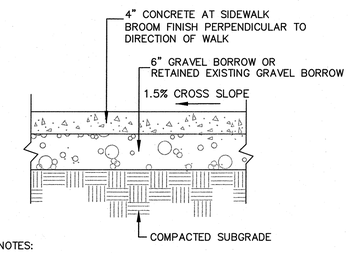
PAINTED HANDICAP SYMBOL

NOT TO SCALE

R7-8
12" x 18"

SIGN

NOT TO SCALE

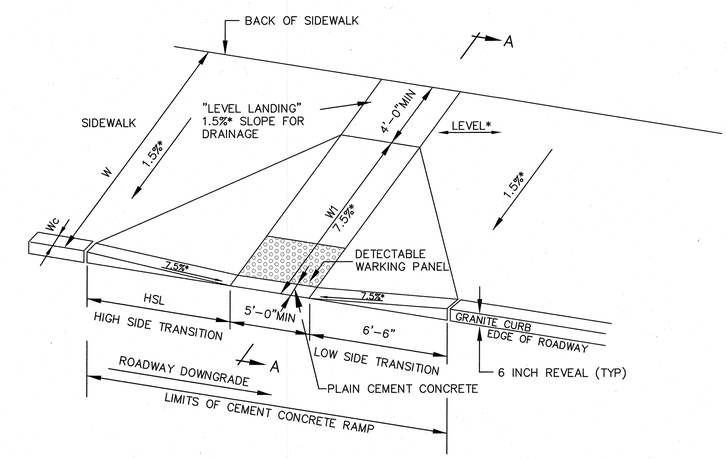


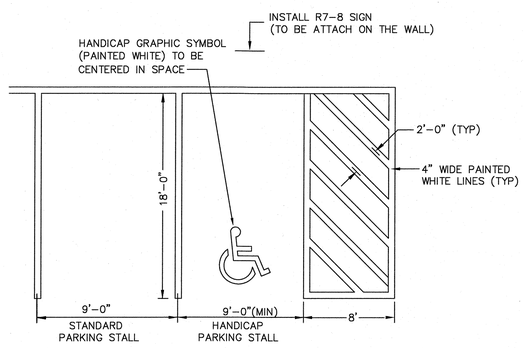
NOTES:

1. PROVIDE ½" CONSTRUCTION CONTROL JOINT WITH PREFORMED EXPANSION MATERIAL EVERY 20'-0" O.C. MAX.
2. PROVIDE A TOOLED DUMMY JOINT ¼"W x ½"D AS NEEDED TO PROVIDE SYMMETRY.

CEMENT CONCRETE SIDEWALK

NOT TO SCALE



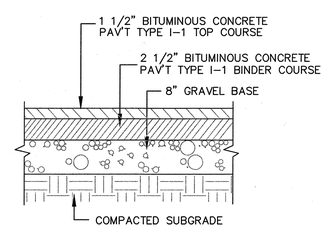


NOTE:

1. ALL PAINT SHALL BE FAST DRYING WHITE TRAFFIC PAINT, MEETING THE REQUIREMENTS OF AASHTO M248-TYPE N. PAINT SHALL BE APPLIED AS SPECIFIED BY MANUFACTURER.
2. SYMBOLS & PARKING STALLS SHALL CONFORM TO THE REQUIREMENTS OF THE AMERICAN WITH DISABILITIES ACT.

PARKING STALL STRIPING

NOT TO SCALE



BITUMINOUS CONCRETE PAVEMENT

NOT TO SCALE

LEGEND:

HSL = HIGH SIDE FRONT TRANSITION LENGTH

W = SIDEWALK WIDTH

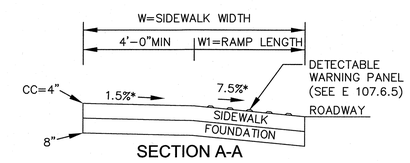
Wc = CURB WIDTH

CC = CEMENT CONCRETE

* = TOLERANCE FOR CONSTRUCTION ±0.5%

USABLE SIDEWALK WIDTH PER AAB = W-Wc

RAMP LENGTH, W1 = W-4'-0"MIN



SECTION A-A

CEMENT CONCRETE WHEELCHAIR RAMPS GREATER THAN 12'-4" SIDEWALK (E 107.3.0R)

NOT TO SCALE

Design Consultants, Inc.
CIVIL ENGINEERS and LAND SURVEYORS
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PROJECT INFO

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STAMP:

DETAIL SHEET

SHEET NAME:

C3.1

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