

EROSION AND SEDIMENTATION NARRATIVE

BEST MANAGEMENT PRACTICES (BMP) FOR EROSION AND SEDIMENTATION CONTROL ARE STAKED STRAW BALES, FILTER FENCES, HYDROSEEDING AND PHASED DEVELOPMENT. MANY STORMWATER BMP TECHNOLOGIES (E.G. INFILTRATION TECHNOLOGIES) ARE NOT DESIGNED TO HANDLE THE HIGH CONCENTRATIONS OF OF SEDIMENTS TYPICALLY FOUND IN CONSTRUCTION RUNOFF AND MUST BE PROTECTED FROM CONSTRUCTION RELATED SEDIMENT LOADINGS. CONSTRUCTION BMP'S MUST BE MAINTAINED.

IN DEVELOPING THE PROJECT, CERTAIN MEASURES WILL BE IMPLEMENTED TO MINIMIZE IMPACTS EROSION AND SEDIMENTATION COULD HAVE ON SURROUNDING AREAS. THIS NARRATIVE ADDRESSES ITEMS THAT INVOLVE PROPER CONSTRUCTION TECHNIQUES, CLOSE SURVEILLANCE OF WORKMANSHIP AND IMMEDIATE RESPONSE TO EMERGENCY SITUATIONS. THE DEVELOPER MUST BE PREPARED TO PROVIDE WHATEVER REASONABLE MEASURES NECESSARY TO PROTECT THE ENVIRONMENT DURING CONSTRUCTION AND STABILIZE ALL DISTURBED AREAS AS SOON AS CONSTRUCTION ENDS.

PRE-CONSTRUCTION

- THE CONTRACTOR SHALL HAVE A STOCKPILE OF MATERIALS REQUIRED TO CONTROL EROSION ON-SITE TO BE USED TO SUPPLEMENT OR REPAIR EROSION CONTROL DEVICES. THESE MATERIALS SHALL INCLUDE, BUT ARE NOT LIMITED TO, STRAW WATTLES AND CRUSHED STONE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR EROSION CONTROL ON-SITE AND SHALL UTILIZE EROSION CONTROL MEASURES WHERE NEEDED REGARDLESS OF WHETHER THE MEASURES ARE SPECIFIED ON THE PLAN OR WITHIN THE PERMIT DECISIONS.

PRELIMINARY SITE WORK

- MATERIALS, SUCH AS GRAVEL TO BE REMOVED, SHOULD BE STOCKPILED, SEPARATING THE TOPSOIL FOR FUTURE USE ON-SITE. EROSION CONTROL SHALL BE UTILIZED ALONG THE DOWN SLOPE SIDE OF THE PILES IF THE PILES ARE TO REMAIN FOR MORE THAN THREE WEEKS.
- IF INTENSE RAINFALL IS ANTICIPATED, THE INSTALLATION OF SUPPLEMENTAL STRAW WATTLES SHALL BE CONSIDERED.

DRAINAGE SYSTEM

- THE STORMWATER TREATMENT SYSTEMS SHALL BE INSTALLED FROM THE DOWNSTREAM END UP.
- PROCESSED STONE SHALL BE INSTALLED IMMEDIATELY UPON PLACEMENT OF ANY PIPE. IF INTENSE RAINFALL, SUCH AS HURRICANES, IS PREDICTED BEFORE ALL TRIBUTARY AREAS ARE STABILIZED ALL DRAINAGE STRUCTURES SHALL BE INSPECTED AND CLEANED OF ALL SEDIMENT AND DEBRIS.
- WATER SHALL NOT BE ALLOWED TO ENTER PIPES FROM SURFACES THAT ARE NOT STABILIZED.
- AT THE END OF ALL CONSTRUCTION ACTIVITY, PARKING AREAS AND BMP'S SHALL BE CLEANED OF ALL SEDIMENT AND DEBRIS.

LANDSCAPING

- LANDSCAPING/SEEDING SHALL OCCUR AS SOON AS POSSIBLE TO PROVIDE PERMANENT STABILIZATION OF DISTURBED SURFACES. MAXIMUM DURATION OF EXPOSED OF DISTURBED SURFACES PRIOR TO PERMANENT STABILIZATION SHALL NOT EXCEED SIXTY DAYS OR AS ALLOWED BY THE APPROVING AUTHORITY.
- CONTRACTOR SHALL UTILIZE A VARIETY OF SLOPE STABILIZATION METHODS AND MATERIALS THAT SHALL BE ADJUSTED TO THE SITE CONDITIONS. EROSION CONTROL BLANKETS OR MIRAFI MIRIMAT OR SIMILAR PRODUCTS SHALL BE AVAILABLE ON-SITE.
- IF THE SEASON OR ADVERSE WEATHER CONDITIONS DO NOT ALLOW FOR THE ESTABLISHMENT OF VEGETATION, TEMPORARY MULCHING WITH STRAW, WOODCHIPS OR OTHER METHODS SHALL BE PROVIDED.
- A MINIMUM OF 6" OF TOPSOIL SHALL BE PLACED AND ITS SURFACE SMOOTHED TO THE SPECIFIED GRADES.
- THE USE OF HERBICIDES IS STRONGLY DISCOURAGED. CONTRACTOR SHALL CAREFULLY READ THE PERMIT DOCUMENTS FOR ANY OTHER RESTRICTIONS RELATED TO THE APPLICATIONS OF FERTILIZERS.
- HYDROSEEDING IS ENCOURAGED FOR STEEP SLOPES. APPLICATION RATES ON SLOPES GREATER THAN 3:1 SHALL HAVE A MINIMUM SEEDING RATE IF 5 LBS. PER 1000 S.F. A LATEX OR FIBER TACKIFIER SHALL BE USED ON THESE SLOPES AT A MINIMUM RATE OF 50 LBS OF TACKIFIER PER 500 GAL. OF WATER USED.

GENERAL NOTES

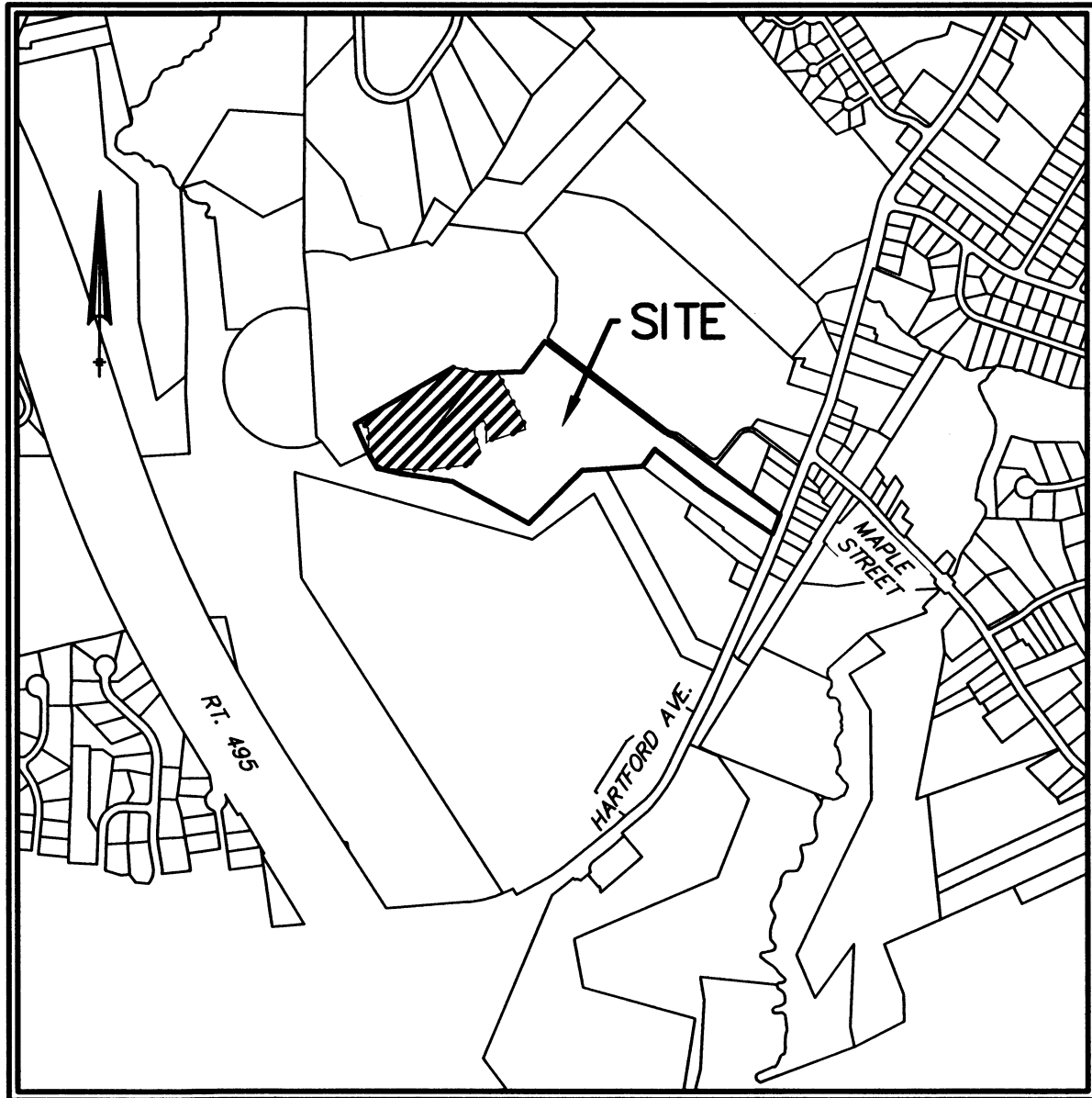
- LOCATIONS OF EXISTING UNDERGROUND UTILITIES/OBSTRUCTIONS/SYSTEMS SHOWN HEREON ARE APPROXIMATE ONLY. ALL UTILITIES/OBSTRUCTIONS/SYSTEMS MAY NOT BE SHOWN. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL UNDERGROUND UTILITIES/OBSTRUCTIONS/SYSTEMS, WHETHER OR NOT SHOWN HEREON.
- UNLESS OTHERWISE SHOWN, ALL NEW UTILITIES SHALL BE UNDERGROUND.
- CONTRACTOR SHALL FURNISH CONSTRUCTION LAYOUT OF BUILDING AND SITE IMPROVEMENTS. THIS WORK SHALL BE PERFORMED BY A PROFESSIONAL LAND SURVEYOR.
- SAFETY MEASURES, CONSTRUCTION METHODS AND CONTROL OF WORK SHALL BE RESPONSIBILITY OF CONTRACTOR.
- CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR AND/OR REPLACEMENT OF ANY EXISTING IMPROVEMENTS DAMAGED DURING CONSTRUCTION THAT ARE NOT DESIGNATED FOR DEMOLITION AND / OR REMOVAL HEREON. DAMAGED IMPROVEMENTS SHALL BE REPAIRED TO THE SATISFACTION OF THEIR RESPECTIVE OWNERS.
- THIS PLAN IS NOT INTENDED TO SHOW AN ENGINEERED BUILDING FOUNDATION DESIGN, WHICH WOULD INCLUDE DETAILS AND FINAL ELEVATIONS OF FOOTINGS, WALLS AND SUBSURFACE DRAINAGE TO PREVENT INTERIOR FLOODING. SEE ARCHITECTURAL AND/OR STRUCTURAL DRAWINGS.
- ANY INTENDED REVISION OF THE HORIZONTAL AND/OR VERTICAL LOCATION OF IMPROVEMENTS TO BE CONSTRUCTED AS SHOWN HEREON SHALL BE REVIEWED AND APPROVED BY ENGINEER PRIOR TO IMPLEMENTATION.
- RIM ELEVATIONS SHOWN FOR NEW STRUCTURES ARE APPROXIMATE AND ARE PROVIDED TO ASSIST CONTRACTOR WITH MATERIAL TAKEOFFS. FINISH RIM ELEVATIONS SHOULD MATCH PAVEMENT, GRADING OR LANDSCAPING, UNLESS SPECIFICALLY INDICATED OTHERWISE.
- WHERE EXISTING UTILITY LINES/STRUCTURES ARE TO BE CUT/BROKEN DOWN/ ABANDONED, LINES/STRUCTURES SHALL BE PLUGGED/CAPPED/FILLED IN ACCORDANCE WITH OWNER REQUIREMENTS.
- THE CONTRACTOR SHALL VERIFY THE LOCATION AND RELATIVE ELEVATION OF BENCH MARKS PRIOR TO COMMENCEMENT OF CONSTRUCTION. ANY DISCREPANCY SHALL BE REPORTED TO THE ENGINEER.
- PROPOSED BUILDING FOUNDATION CONFIGURATION AND LOCATION ON THE LOT AS SHOWN ARE CONCEPTUAL AND SHALL BE VERIFIED AS TO CONFORMANCE WITH FINAL ARCHITECTURAL PLANS AND ZONING ORDINANCES PRIOR TO CONSTRUCTION.
- EROSION CONTROL SHOWN HEREON SHALL BE INSTALLED BEFORE EARTH DISTURBANCE OCCURS AND SHALL SERVE AS THE LIMIT OF WORK.

REGULATORY NOTES

- CONTRACTOR SHALL CONTACT DIG-SAFE FOR UNDERGROUND UTILITY MARKING AT 1-888-344-7233 AT LEAST 72 HOURS PRIOR TO COMMENCEMENT OF ANY WORK.
- CONTRACTOR SHALL MAKE HIMSELF AWARE OF ALL CONSTRUCTION REQUIREMENTS, CONDITIONS, AND LIMITATIONS IMPOSED BY PERMITS AND APPROVALS ISSUED BY REGULATORY AUTHORITIES PRIOR TO COMMENCEMENT OF ANY WORK. CONTRACTOR SHALL COORDINATE AND OBTAIN ALL CONSTRUCTION PERMITS REQUIRED BY REGULATORY AUTHORITIES.
- ALL WORK OUTSIDE OF BUILDING THAT IS LESS THAN 10 FEET FROM THE INSIDE FACE OF BUILDING FOUNDATIONS SHALL CONFORM WITH THE UNIFORM STATE PLUMBING CODE OF MASSACHUSETTS, 24B CMR 2.00.
- IF DEWATERING IS REQUIRED THE CONTRACTOR SHALL PROVIDE A PLAN OF THE PROPOSED MEANS AND METHODS TO THE CITY ENGINEER PRIOR TO THE START OF DEWATERING. ALL DEWATERING ACTIVITIES SHALL OCCUR ON THE UPGRAIENT SIDE OF THE EROSION CONTROL BARRIER.

DEVELOPMENT PLAN
LARGE-SCALE GROUND-MOUNTED
SOLAR PHOTOVOLTAIC INSTALLATION

316 Hartford Ave
Bellingham, MA 01824
FOR
385 Solar, LLC



LOCUS MAP
SCALE: 1"=1,000'±
APPROX PROJECT AREA

APPLICANT:
385 Solar, LLC
265 STATE STREET
SPRINGFIELD, MA 01103

PROJECT TEAM
CIVIL ENGINEERS/ SURVEYORS
HANCOCK ASSOCIATES
34 CHELMSFORD STREET
CHELMSFORD, MA 01824

APPROVED

By Bellingham Planning Board at 10:42 am, Aug 09, 2016

ASSESSORS:

MAP 13, LOTS 3&4

ZONING:

INDUSTRIAL

REFERENCES:

DEED BOOK 30733, PAGE 76

PLAN 417 OF 1970, IN PLAN BOOK 227
PLAN 586 OF 1983, IN PLAN BOOK 304
PLAN 125 OF 1992, IN PLAN BOOK 404

RECORD OWNER:

MAP 13, LOT 3
H & B REALTY MANAGEMENT, LLC
316 HARTFORD AVENUE
BELLINGHAM, MA

MAP 13, LOT 4
POSSIBLY SLOCUM TRUST OR FIRST BAPTIST CHURCH

DIMENSIONAL REQUIREMENTS (PROP. SOLAR PARCEL 13-4)

DISTRICT: 1 - INDUSTRIAL	REQUIRED	PROPOSED
DIMENSIONAL REQUIREMENTS		
MINIMUM YARD REQUIREMENTS		
FRONT (FT)	20'	N/A
SIDE (FT)	8'	10'±
REAR (FT)	16'	N/A

DIMENSIONAL REQUIREMENTS (PROP. SOLAR PARCEL 13-3)

DISTRICT: 1 - INDUSTRIAL	REQUIRED	PROPOSED
DIMENSIONAL REQUIREMENTS		
MINIMUM YARD REQUIREMENTS		
FRONT (FT)	20'	1,615'±
SIDE (FT)	10'	10'±
REAR (FT)	20'	119'±

DIMENSIONAL REQUIREMENTS (EX BUILDING)

DISTRICT: 1 - INDUSTRIAL	REQUIRED	EXISTING
DIMENSIONAL REQUIREMENTS		
316 HARTFORD AVE - EXISTING INFORMATION FROM ASSESSOR		
MINIMUM LOT REQUIREMENT		
AREA (SF)	60,000 SF	367,646± SF
FRONTAGE (FT)	200'	116'
MINIMUM YARD REQUIREMENTS		
FRONT (FT)	20'	43'±
SIDE (FT)	10'	10'±
REAR (FT)	20'	1,454'±
MAXIMUM BUILDING HEIGHT (FT)	35'	<35'

SHEET INDEX

SHEET 1 TITLE SHEET
SHEET 2 EXISTING CONDITIONS PLAN
SHEET 3 DEVELOPMENT SITE PLAN INDEX
SHEET 4 PERMIT DEVELOPMENT PLAN 1
SHEET 5 PERMIT DEVELOPMENT PLAN 2
SHEET 6 PERMIT DEVELOPMENT PLAN 3
SHEET 7 SITE ACCESS EXHIBIT PLAN
SHEET 8 HARTFORD AVE ACCESS EXHIBIT PLAN
SHEET 9 DETAIL PLAN 1
SHEET 10 DETAIL PLAN 2

PERMIT
DEVELOPMENT
PLAN

316 Hartford Ave
Bellingham, Massachusetts 02019

ASSESSORS:

MAP	BLOCK	LOT
0013	0003	0000
0013	0004	0000

PREPARED FOR:

385 Solar, LLC

265 State Street
Springfield, Massachusetts 01103

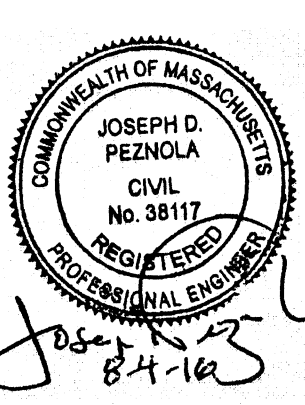
HANCOCK
ASSOCIATES

Civil Engineers

Land Surveyors

Wetland Scientists

34 Chelmsford Street, Chelmsford, MA 01824
Voice (978) 244-0110, Fax (978) 244-1133
www.HancockAssociates.com



3	BG	JP	3/1/2016	PLANNING/PEER COMMENTS
2	SD	JP	1/5/16	PER PEER REVIEW COMMENTS
1	BG	JP	10/28/15	NOI PLAN REQUIREMENTS
NO.	BY	APP	DATE	ISSUE/REVISION DESCRIPTION
DATE:	10/14/2015	DESIGN BY:	BG	
SCALE:	AS SHOWN	DRAWN BY:	BG	
APPRVD. BY:	JP	CHECK BY:	JP	

TITLE
SHEET

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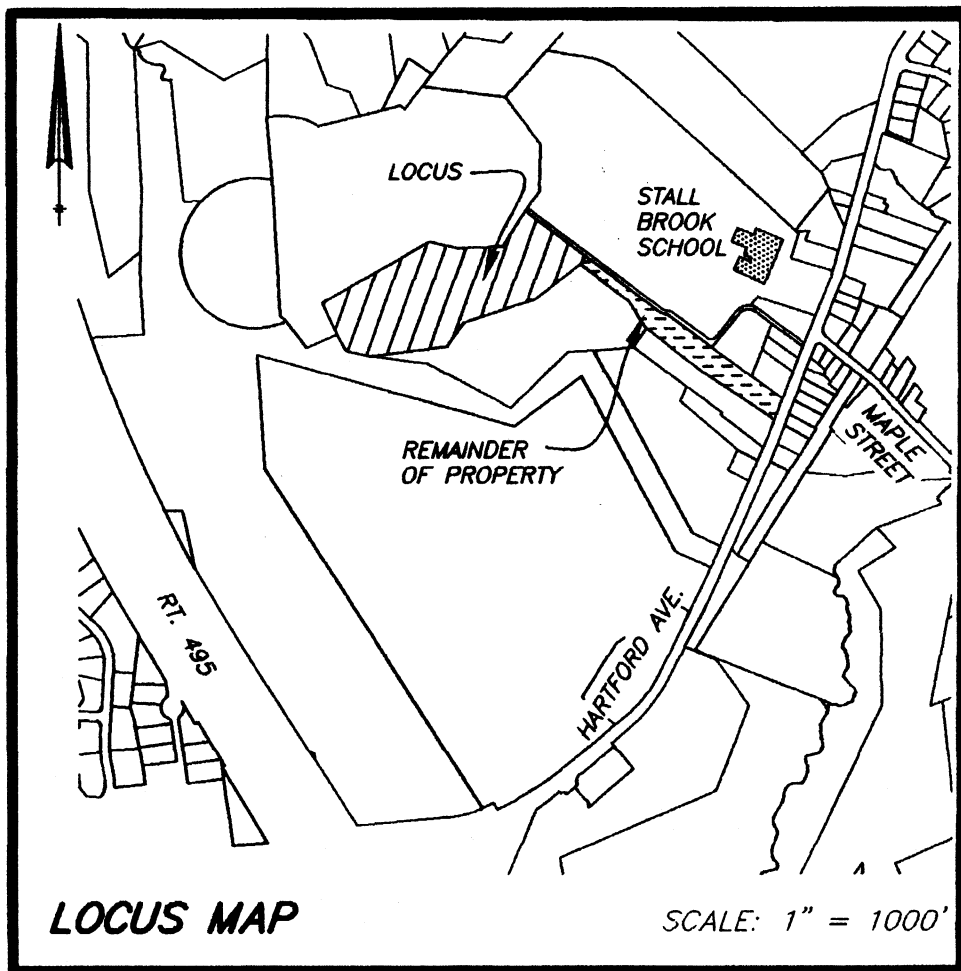
DWG: 19472eng8.dwg

LAYOUT: (1)TS

SHEET: 1 OF 10

PROJECT NO.:

19472



LEGEND

- 234--- SURFACE CONTOUR
- x 23.6 SPOT ELEVATION
- ~~~~~ EDGE OF WOODED AREA
- - - - - FENCE
- - - - - GAS MAIN
- - - - - EXISTING UTILITY POLE WITH DESIGNATION OVERHEAD WIRES
- 208.8 LIMIT OF BORDERING VEGETATED WETLAND WITH FLAG NUMBER AND ELEVATION
- WFA2 100' WETLAND BUFFER
- MONITORING WELL
- EDGE OF TRAIL
- L+SB DRILL HOLE IN STONE BOUND
- S&ND STONE BOUND WITH NO DRILL HOLE
- IR IRON ROD
- T-BND METAL T-BOUND
- CLF CHAINLINK FENCE
- W=253.00 WIRE HEIGHT ELEVATION

ASSESSORS:

MAP 13, LOTS 3 & 4

ZONING:

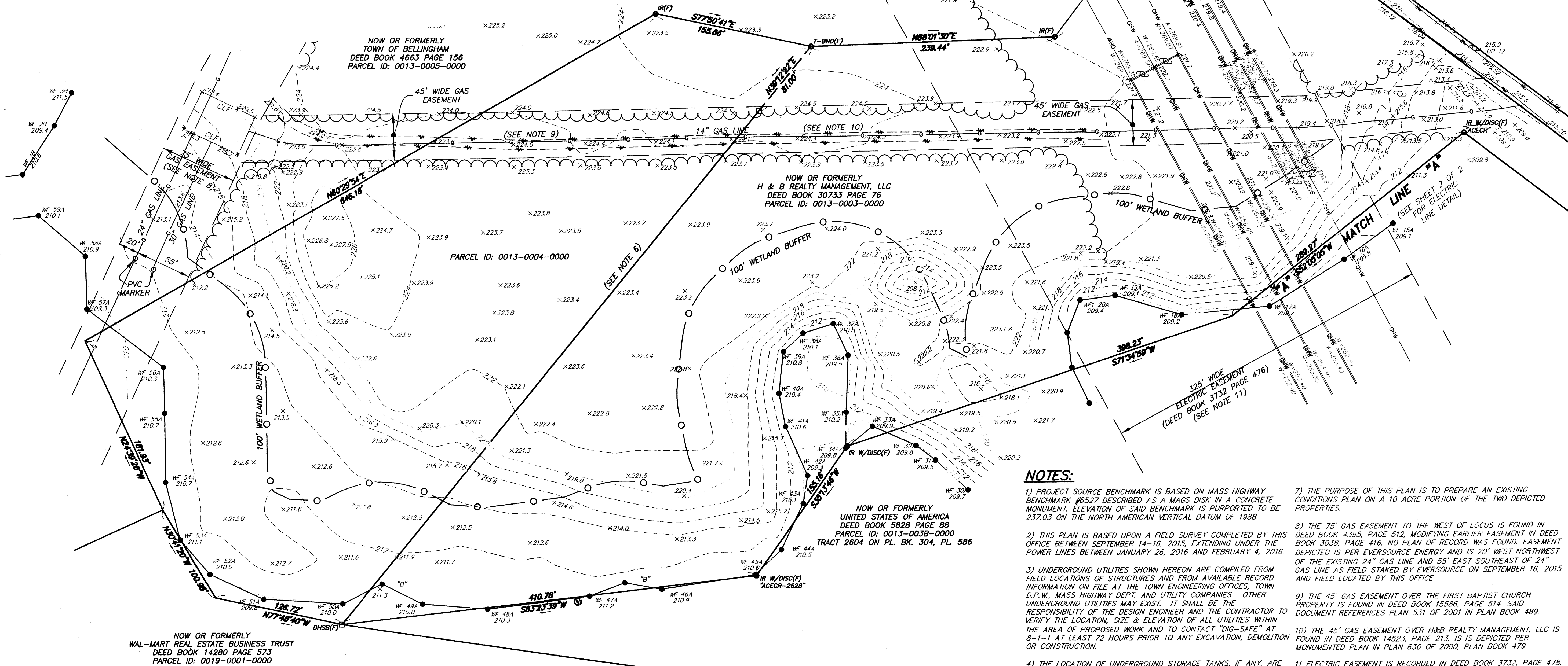
INDUSTRIAL

REFERENCES:

OWNER 1: DEED BOOK 30733, PAGE 76
OWNER 2: DEED BOOK 321, PAGE 289
PLAN 417 OF 1970, IN PLAN BOOK 227
PLAN 586 OF 1983, IN PLAN BOOK 304
PLAN 125 OF 1992, IN PLAN BOOK 404

RECORD OWNER:

OWNER 1: MAP 13, LOT 3
H & B REALTY MANAGEMENT, LLC
316 HARTFORD AVENUE
BELLINGHAM, MA
OWNER 2: MAP 13, LOT 4
FIRST BAPTIST CHURCH AND SOCIETY IN BELLINGHAM, MA
(SEE NOTE 14)



NOTES:

- PROJECT SOURCE BENCHMARK IS BASED ON MASS HIGHWAY BENCHMARK #6327 DESCRIBED AS A MAGS DISK IN A CONCRETE MONUMENT. ELEVATION OF SAID BENCHMARK IS PURPORTED TO BE 237.03 ON THE NORTH AMERICAN VERTICAL DATUM OF 1988.
- THIS PLAN IS BASED UPON A FIELD SURVEY COMPLETED BY THIS OFFICE BETWEEN SEPTEMBER 14-16, 2015, EXTENDING UNDER THE POWER LINES BETWEEN JANUARY 26, 2016 AND FEBRUARY 4, 2016.
- UNDERGROUND UTILITIES SHOWN HEREON ARE COMPILED FROM FIELD LOCATIONS OF STRUCTURES AND FROM AVAILABLE RECORD INFORMATION ON FILE AT THE TOWN ENGINEERING OFFICES, TOWN D.P.W., MASS HIGHWAY DEPT. AND UTILITY COMPANIES. OTHER UNDERGROUND UTILITIES MAY EXIST. IT SHALL BE THE RESPONSIBILITY OF THE DESIGN ENGINEER AND THE CONTRACTOR TO VERIFY THE LOCATION, SIZE & ELEVATION OF ALL UTILITIES WITHIN THE AREA OF PROPOSED WORK AND TO CONTACT "DIG-SAFE" AT 8-1-1 AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION, DEMOLITION OR CONSTRUCTION.
- THE LOCATION OF UNDERGROUND STORAGE TANKS, IF ANY, ARE UNKNOWN.
- THIS TOPOGRAPHIC SURVEY WAS PREPARED TO MEET NATIONAL MAP ACCURACY STANDARDS AT A SCALE OF 1"=50' HORIZONTALLY AND A 2 FOOT CONTOUR INTERVAL VERTICALLY. ANY REPRODUCTIONS OR RE-SCALING MAY EFFECT THE MAP ACCURACY.
- THE PROPERTY LINE BETWEEN H & B REALTY MANAGEMENT, LLC AND PARCEL 0013-0004-0000 IS SHOWN APPROXIMATELY +/- 1' IN THIS DRAFT. ADDITIONAL FIELD TRAVERSE AND CALCULATION WOULD BE REQUIRED TO MORE DEFINITELY DEPICT THIS LINE.
- THE PURPOSE OF THIS PLAN IS TO PREPARE AN EXISTING CONDITIONS PLAN ON A 10 ACRE PORTION OF THE TWO DEPICTED PROPERTIES.
- THE 75' GAS EASEMENT TO THE WEST OF LOCUS IS FOUND IN DEED BOOK 4395, PAGE 512, MODIFYING EARLIER EASEMENT IN DEED BOOK 3038, PAGE 416. NO PLAN OF RECORD WAS FOUND. EASEMENT DEPICTED IS PER EVERSOURCE ENERGY AND IS 20' WEST NORTHWEST OF THE EXISTING 24" GAS LINE AND 55' EAST SOUTHEAST OF 24" GAS LINE AS FIELD STAKED BY EVERSOURCE ON SEPTEMBER 16, 2015 AND FIELD LOCATED BY THIS OFFICE.
- THE 45' GAS EASEMENT OVER THE FIRST BAPTIST CHURCH PROPERTY IS FOUND IN DEED BOOK 15586, PAGE 514. SAID DOCUMENT REFERENCES PLAN 531 OF 2001 IN PLAN BOOK 489.
- THE 45' GAS EASEMENT OVER H&B REALTY MANAGEMENT, LLC IS FOUND IN DEED BOOK 14523, PAGE 213. IS IS DEPICTED PER MONUMENTED PLAN IN PLAN 630 OF 2000, PLAN BOOK 479.
- ELECTRIC EASEMENT IS RECORDED IN DEED BOOK 3732, PAGE 478. A PLAN OF RECORD FOR SAID EASEMENT IS FOUND IN DEED BOOK 4058, PAGE 350. SAID PLAN DEPICTS NO MONUMENTS. EASEMENT IS DEPICTED HEREON FROM "BEST FIT" OF POLE LINES SHOWN ON UNRECORDED 10-1-1962 PLAN SUPPLIED BY NATIONAL GRID (T-5329-9 SHEET 37 OF 39).
- WETLANDS FLAGGED PER HANCOCK ASSOCIATES ON SEPTEMBER 9, 2015 AND TWO UPDATED FLAGS ("B") WERE ADDED ON JANUARY 9, 2016.
- THE 20' WIDE "PARCEL A" TOWN OF BELLINGHAM PARCEL IS FROM DEED 4663/156. SAID DEED MARGINALLY REFERENCES ONLY ONE SHEET OF THE TWO PLANS DESCRIBED IN THE TAKING. "PARCEL A" IS FROM PLAN 418 OF 1970. IT IS SHOWN APPROXIMATELY HEREON FROM COMPILATION.
- OWNERS ARE LISTED PER TITLE REPORT PREPARED BY METROPOLITAN TITLE, LLC DATED 1-12-16.

ELEVATION BENCH MARKS		
DATUM: (SEE NOTE 1)		
NO.	DESCRIPTION	ELEV.
A	CHISEL SQUARE SET ON CONCRETE HEADWALL	220.80

SCALE: 1" = 50'

SITE ADDRESS:

#316
HARTFORD
AVENUE

Bellingham, Massachusetts

PREPARED FOR:

HELIOVAAS,
LLC

265 State Street
Springfield, Massachusetts 01103

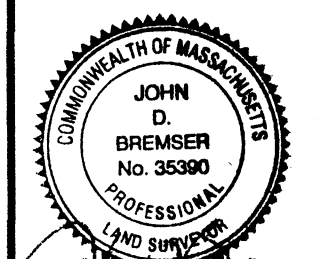
HANCOCK
ASSOCIATES

Civil Engineers

Land Surveyors

Environmental
Consultants

315 Elm Street, Marlborough, MA 01752
Voice (508) 460-1111, Fax (508) 460-1121
www.hancockassociates.com



NO.	BY	APP	DATE	ISSUE/REVISION DESCRIPTION
3	CMC	JDB	2/17/16	ADD SHEET 2 TO PLAN
2	JDB	JDB	2/11/16	REV. PER TITLE (SEE NOTE 14)
1	CMC	JDB	2/2/16	ADDITIONAL TOPO INFO
NO.	BY	APP	DATE	ISSUE/REVISION DESCRIPTION
DATE:	9/30/15	DRAWN BY:	CMC	
SCALE:	1" = 50'	CHECK BY:	JDB	

EXISTING
CONDITIONS
PLAN

PLOT DATE: Feb 17, 2016 10:37 am
PATH: W:\19472-Bellingham\Source Drawings\

DWG: 19472SV.dwg

LAYOUT: EC

SHEET: 1 OF 2

EC

PROJECT NO.:

19472

316 Hartford Ave
Bellingham, Massachusetts 02019

<u>MAP</u>	<u>BLOCK</u>	<u>LOT</u>
0013	0003	0000
0013	0004	0000

385 Solar, LLC

265 State Street
Springfield, Massachusetts 01103

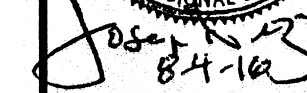
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34 Chelmsford Street, Chelmsford, MA 01824
Voice (978) 244-0110, Fax (978) 244-1133
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3	BG	JP	3/1/2016	PLANNING/PEER COMMENTS
2	SD	JP	1/5/16	PER PEER REVIEW COMMENTS
1	BG	JP	10/28/15	NOI PLAN REQUIREMENTS
NO.	BY	APP	DATE	ISSUE/REVISION DESCRIPTION
DATE:			10/14/2015	DESIGN BY:
SCALE:			AS SHOWN	DRAWN BY:
APPROV. BY:			JP	CHECK BY:

DEVELOPMENT SITE PLAN INDEX

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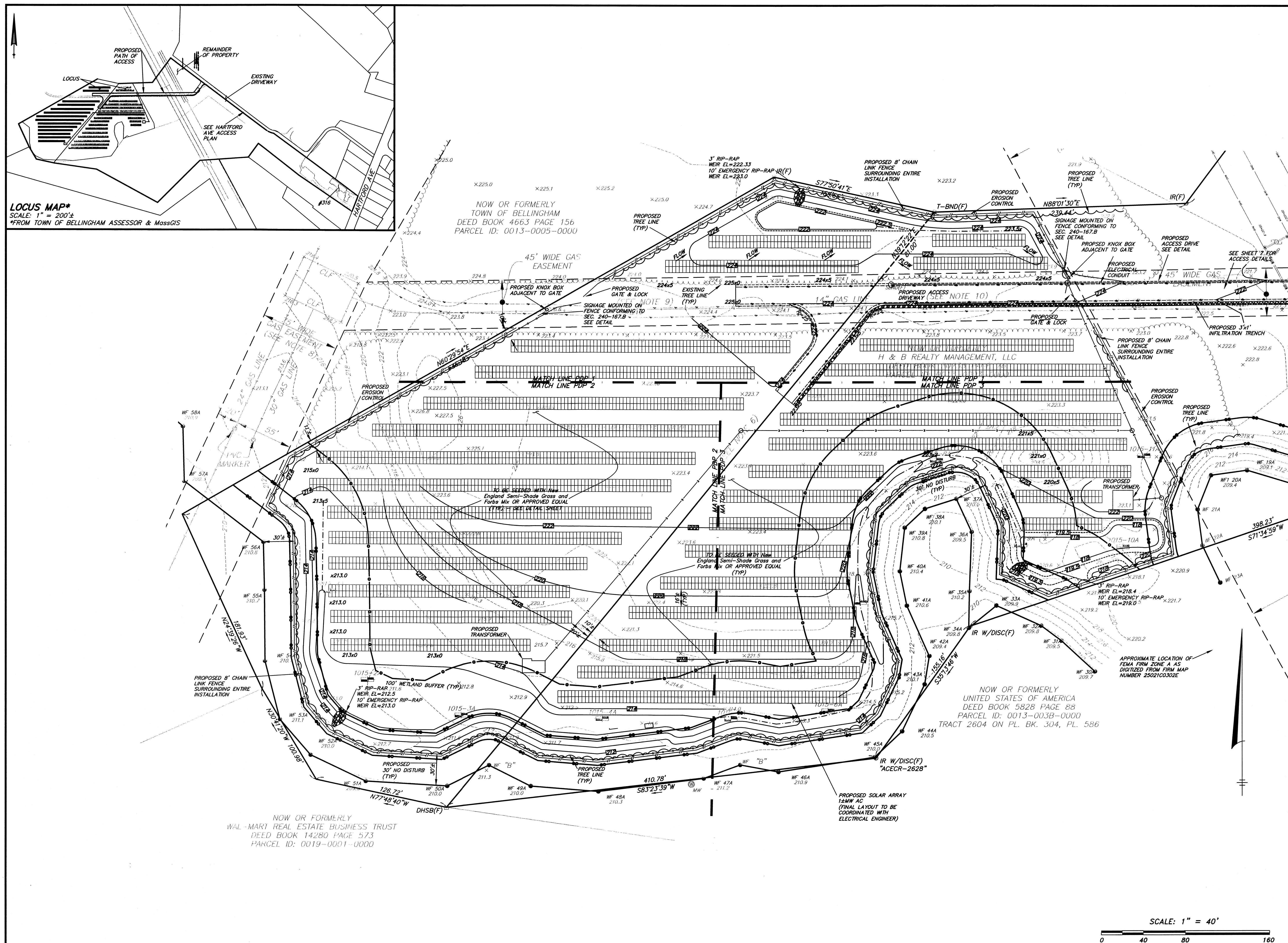
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SHEET: 1

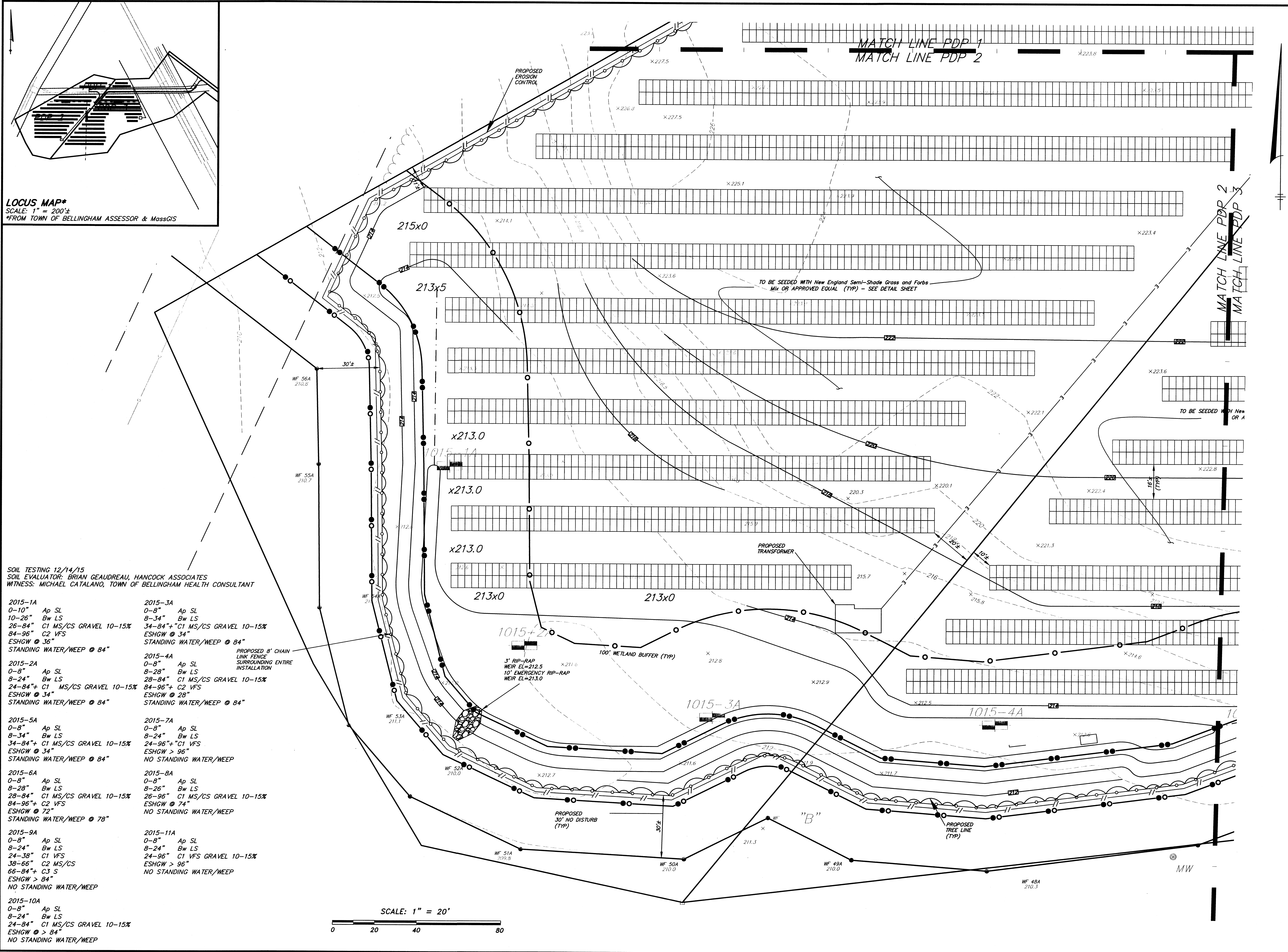
PROJECT NO.

3

19472



2015-11A
0-8" Ap SL
8-24" Bw LS
24-96" C1 VFS GRAVEL 10-15%
ESHWG > 96"
NO STANDING WATER/WEED



LOCUS MAP*
SCALE: 1" = 200'±
*FROM TOWN OF BELLINGHAM ASSESSOR & MassGIS

SOIL TESTING 12/14/15
SOIL EVALUATOR: BRIAN GEAUDREAU, HANCOCK ASSOCIATES
WITNESS: MICHAEL CATALANO, TOWN OF BELLINGHAM HEALTH CONSULTANT

- | | |
|---|---|
| 2015-1A
0-10" Ap SL
10-26" Bw LS
26-84" C1 MS/CS GRAVEL 10-15%
84-96" C2 VFS
ESHGW @ 36"
STANDING WATER/WEEP @ 84" | 2015-3A
0-8" Ap SL
8-34" Bw LS
34-84" C1 MS/CS GRAVEL 10-15%
ESHGW @ 34"
STANDING WATER/WEEP @ 84" |
| 2015-2A
0-8" Ap SL
8-24" Bw LS
24-84" C1 MS/CS GRAVEL 10-15%
84-96" C2 VFS
ESHGW @ 34"
STANDING WATER/WEEP @ 84" | 2015-4A
0-8" Ap SL
8-28" Bw LS
28-84" C1 MS/CS GRAVEL 10-15%
84-96" C2 VFS
ESHGW @ 28"
STANDING WATER/WEEP @ 84" |
| 2015-5A
0-8" Ap SL
8-34" Bw LS
34-84" C1 MS/CS GRAVEL 10-15%
84-96" C2 VFS
ESHGW @ 34"
STANDING WATER/WEEP @ 84" | 2015-7A
0-8" Ap SL
8-24" Bw LS
24-96" C1 VFS
ESHGW > 96"
NO STANDING WATER/WEEP |
| 2015-6A
0-8" Ap SL
8-28" Bw LS
28-84" C1 MS/CS GRAVEL 10-15%
84-96" C2 VFS
ESHGW @ 72"
STANDING WATER/WEEP @ 78" | 2015-8A
0-8" Ap SL
8-26" Bw LS
26-96" C1 MS/CS GRAVEL 10-15%
ESHGW @ 74"
NO STANDING WATER/WEEP |
| 2015-9A
0-8" Ap SL
8-24" Bw LS
24-38" C1 VFS
38-66" C2 MS/CS
66-84" C3 S
ESHGW > 84"
NO STANDING WATER/WEEP | 2015-11A
0-8" Ap SL
8-24" Bw LS
24-96" C1 VFS GRAVEL 10-15%
ESHGW > 96"
NO STANDING WATER/WEEP |
| 2015-10A
0-8" Ap SL
8-24" Bw LS
24-84" C1 MS/CS GRAVEL 10-15%
ESHGW @ > 84"
NO STANDING WATER/WEEP | |

SCALE: 1" = 20'
0 20 40 80

PERMIT DEVELOPMENT PLAN

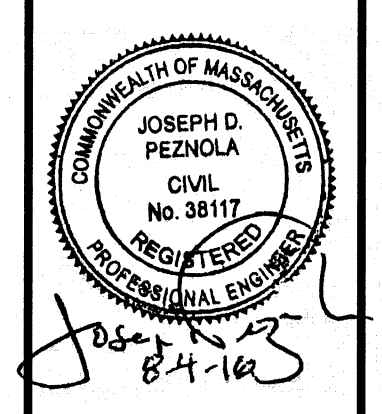
316 Hartford Ave
Bellingham, Massachusetts 02019

ASSESSORS:		
MAP	BLOCK	LOT
0013	0003	0000
0013	0004	0000

PREPARED FOR:
385 Solar, LLC
265 State Street
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1	BG	JP	10/28/15	NOI PLAN REQUIREMENTS
DATE: 10/14/2015 DESIGN BY: BG				
SCALE: AS SHOWN DRAWN BY: BG				
APPRVD. BY: JP CHECK BY: JP				

PERMIT DEVELOPMENT PLAN 2

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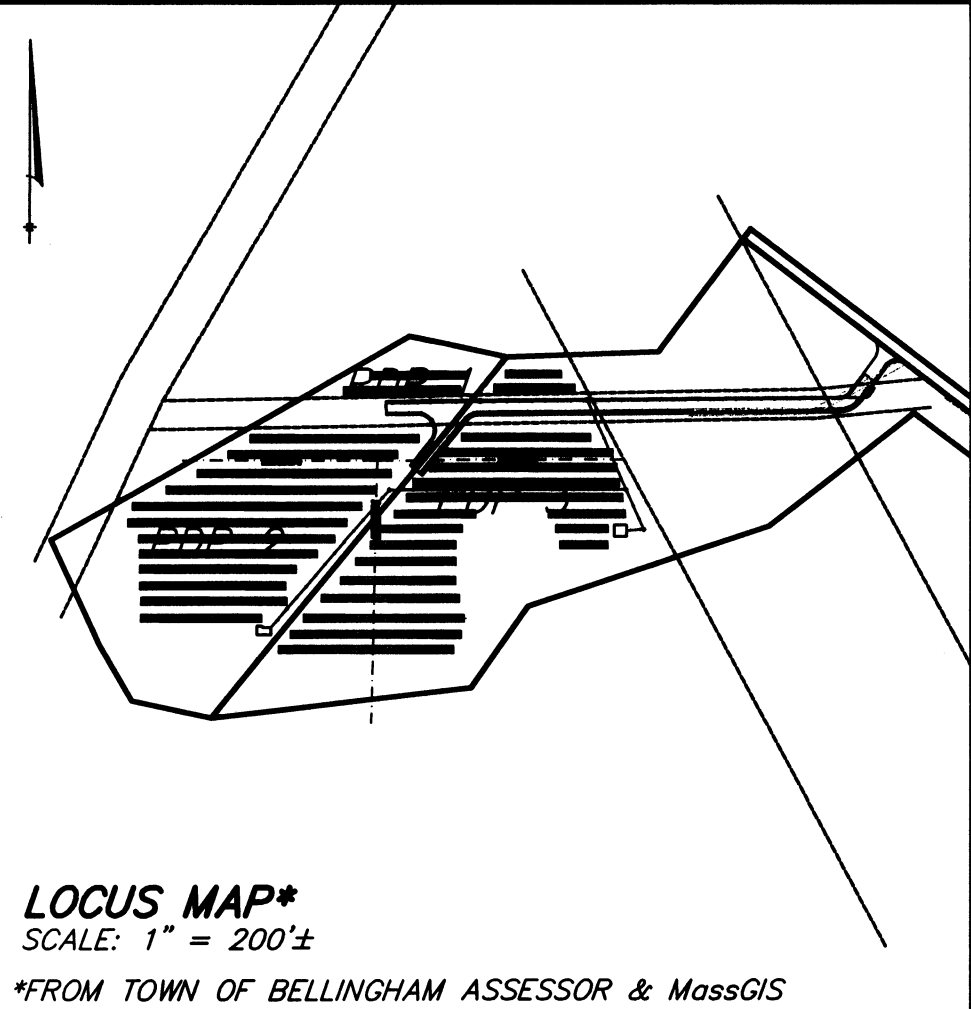
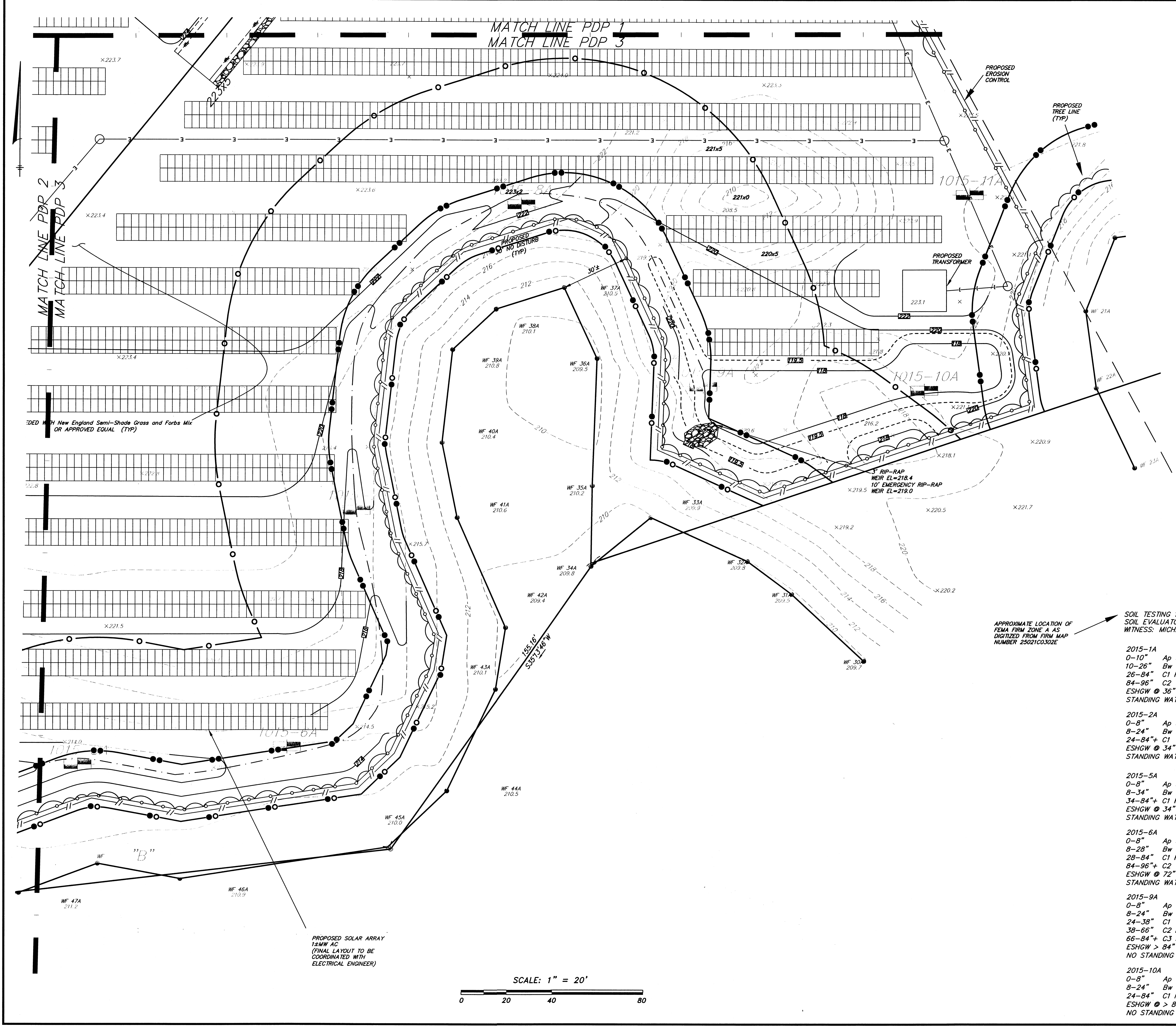
DWG: 19472engB.dwg

LAYOUT: (5)PDP 2

SHEET: 5 OF 10

PROJECT NO.: 19472

5



PERMIT DEVELOPMENT PLAN

316 Hartford Ave
Bellingham, Massachusetts 02019

ASSESSORS:

MAP	BLOCK	LOT
0013	0003	0000
0013	0004	0000

PREPARED FOR:

385 Solar, LLC

265 State Street
Springfield, Massachusetts 01103

HANCOCK ASSOCIATES

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Land Surveyors
Wetland Scientists

34 Chelmsford Street, Chelmsford, MA 01824
Voice (978) 244-0110, Fax (978) 244-1133
www.HancockAssociates.com

COMMONWEALTH OF MASSACHUSETTS
JOSEPH D. PEZNOLO
CIVIL
No. 38117
REGISTERED PROFESSIONAL ENGINEER

8-4-16

NO.	BY	APP	DATE	ISSUE/REVISION DESCRIPTION
3	BG	JP	3/1/2016	PLANNING/PEER COMMENTS
2	SD	JP	1/5/16	PER PEER REVIEW COMMENTS
1	BG	JP	10/28/15	NOI PLAN REQUIREMENTS

DATE:	10/14/2015	DESIGN BY:	BG
SCALE:	AS SHOWN	DRAWN BY:	BG
APPRVD. BY:	JP	CHECK BY:	JP

PERMIT DEVELOPMENT PLAN 3

PLOT DATE: Aug 05, 2016 8:19 am
PATH: J:\Share\PROJECTS\19472-19445-Bellingham\DWG\

DWG:	19472eng8.dwg	6
LAYOUT:	(6)PDP 3	
SHEET:	6 OF 10	

PROJECT NO.: 19472

PERMIT
DEVELOPMENT
PLAN

316 Hartford Ave
Bellingham, Massachusetts 02019

ASSESSORS:

MAP	BLOCK	LOT
0013	0003	0000
0013	0004	0000

PREPARED FOR:

385 Solar, LLC

265 State Street
Springfield, Massachusetts 01103

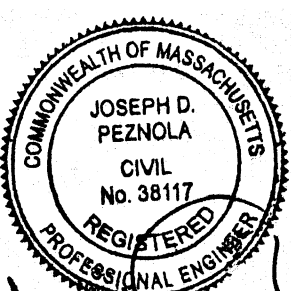
HANCOCK
ASSOCIATES

Civil Engineers

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Joseph D. Peznola
8-4-16

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2	SD	JP	1/5/16	PER PEER REVIEW COMMENTS
1	BG	JP	10/28/15	NOI PLAN REQUIREMENTS
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SCALE:	AS SHOWN	DRAWN BY:	SD	
APPRD. BY:	JP	CHECK BY:	JP	

SITE ACCESS
PLAN

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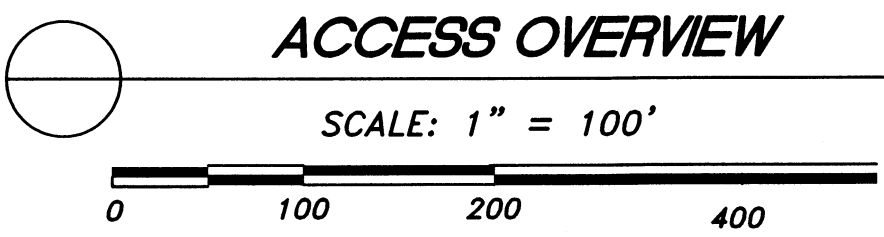
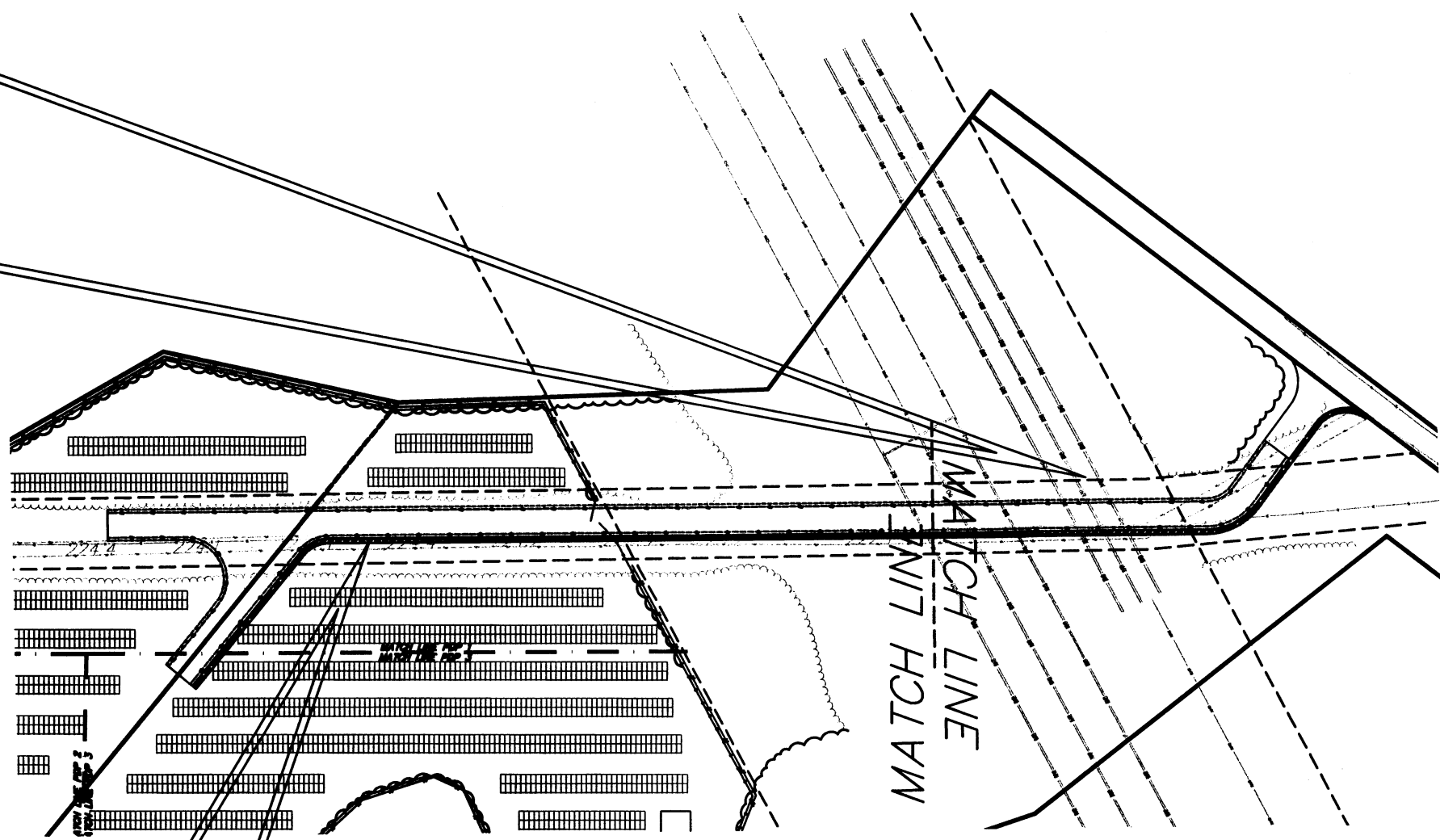
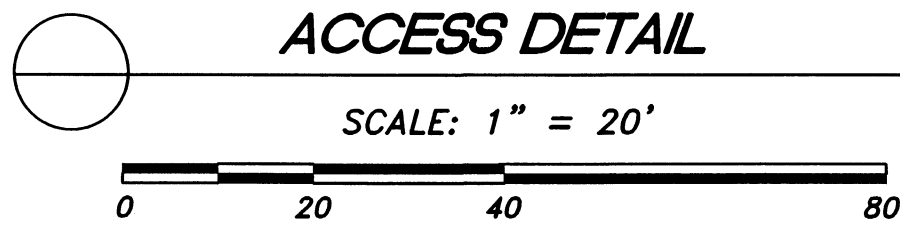
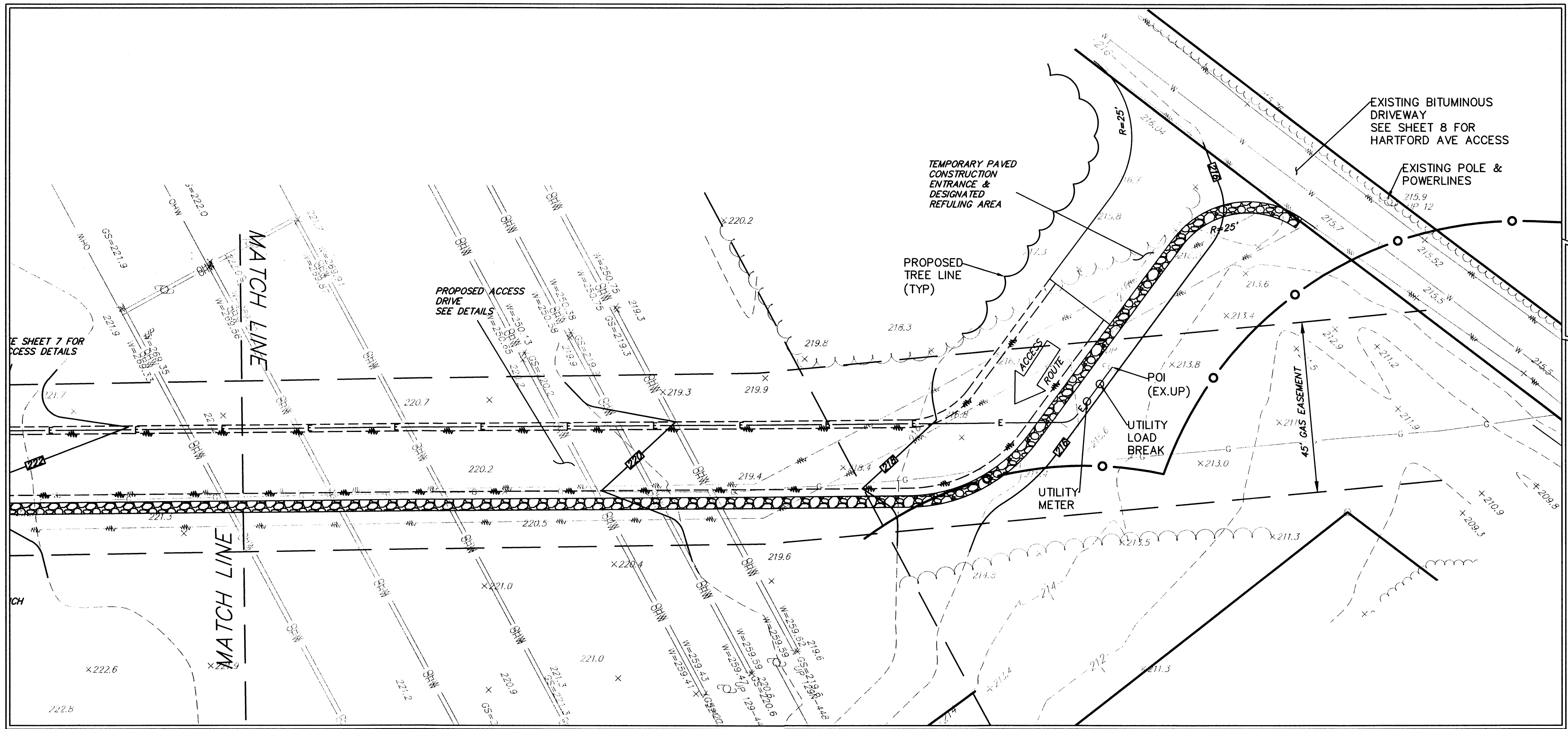
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LAYOUT: (7)Site Access

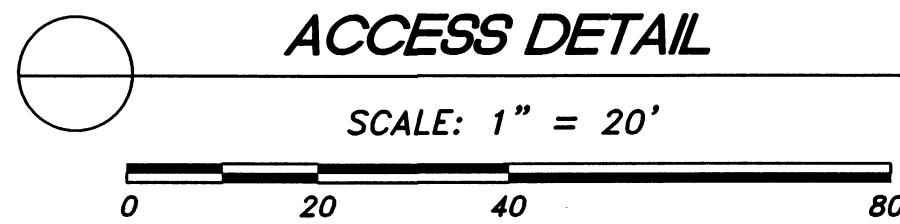
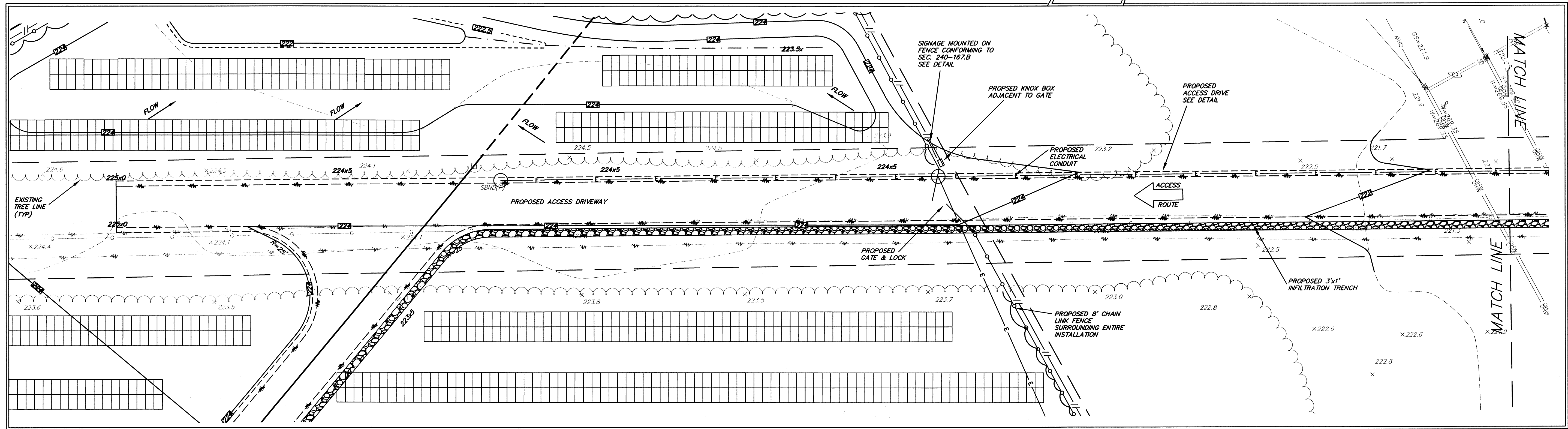
SHEET: 7 OF 10

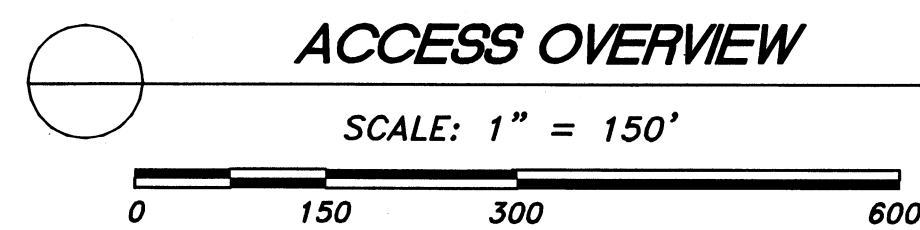
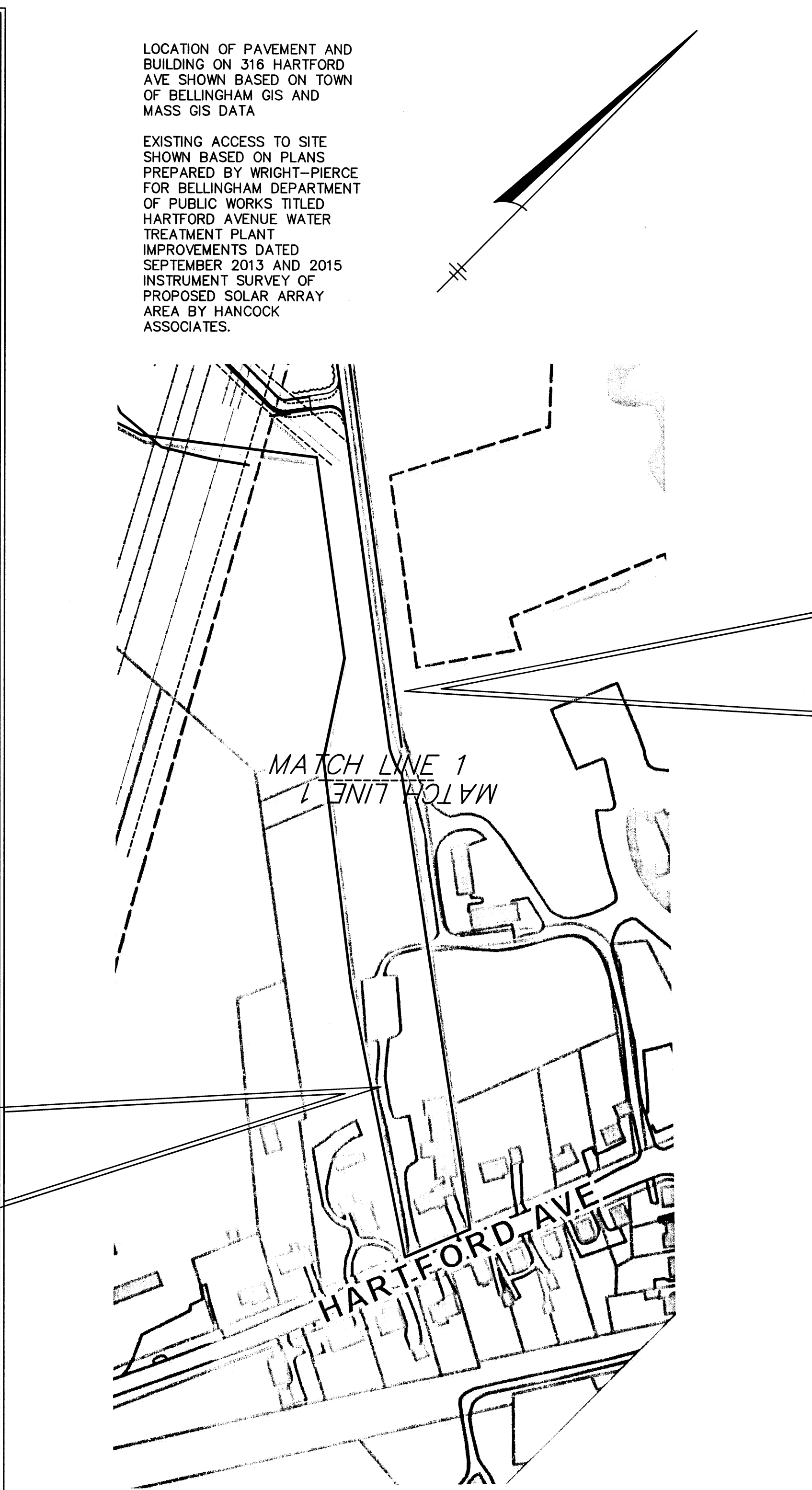
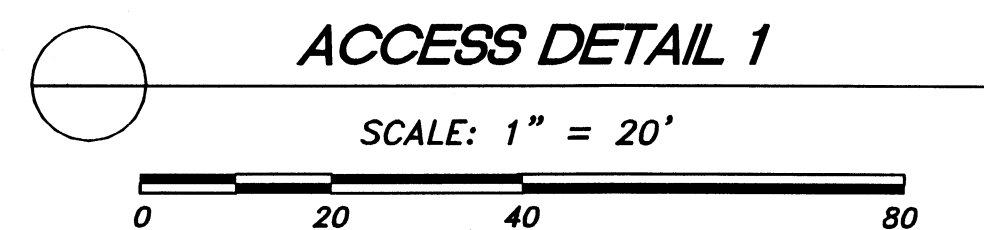
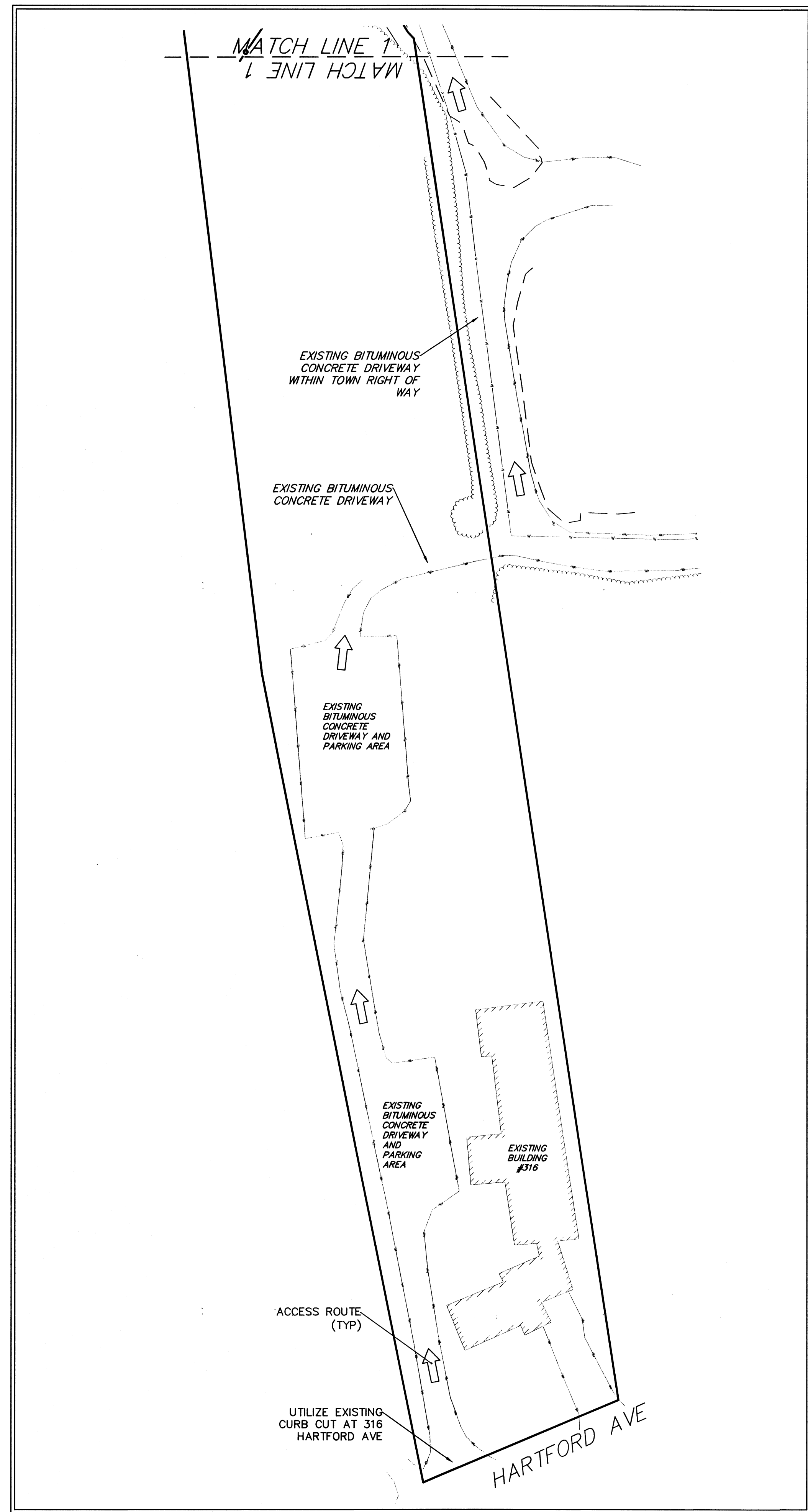
PROJECT NO.:

19472

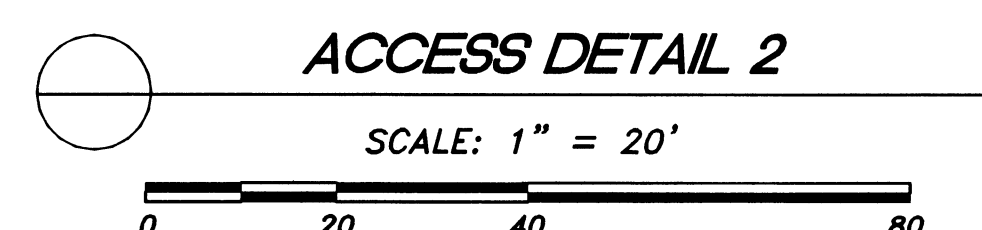
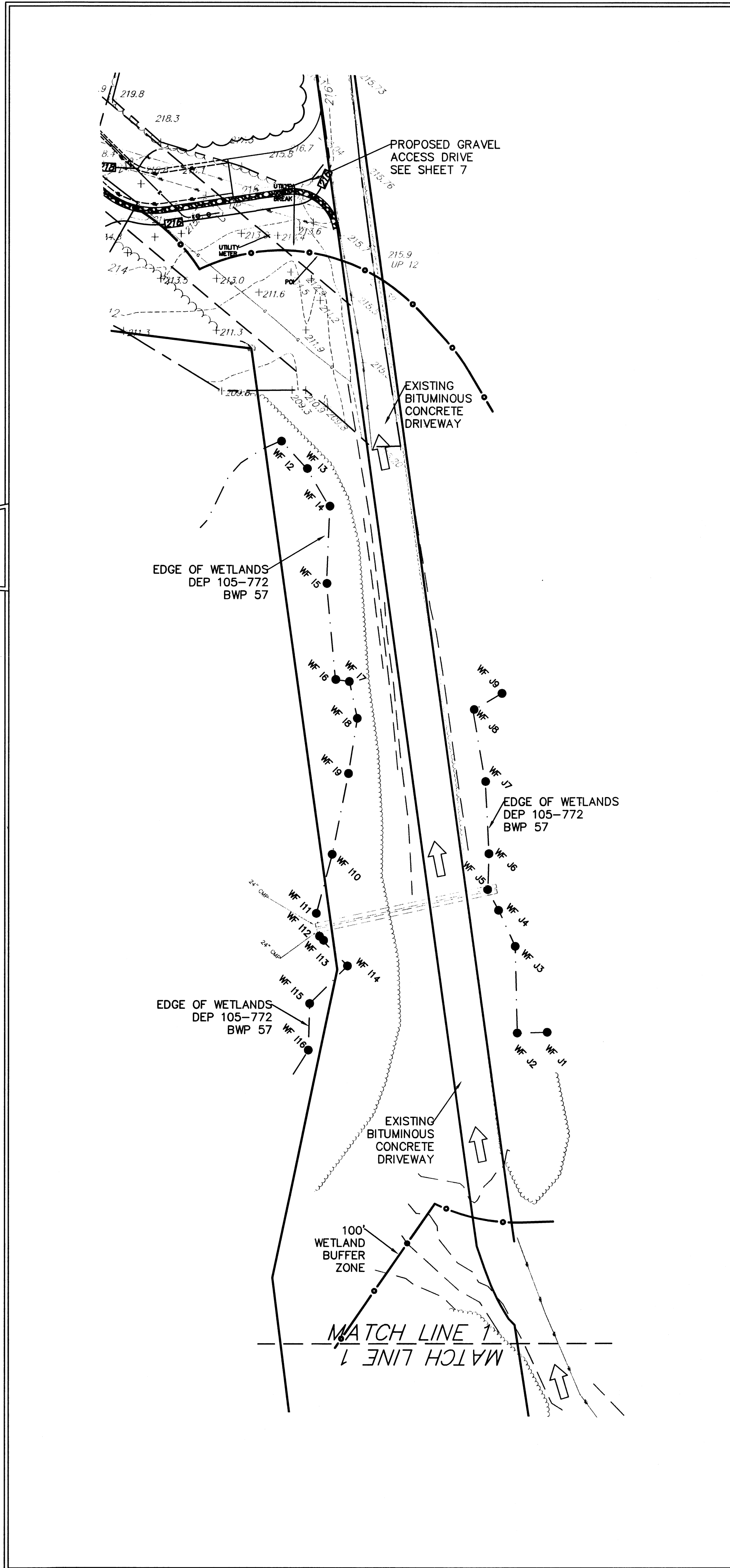


EXISTING ACCESS TO SITE SHOWN BASED ON PLANS PREPARED BY WRIGHT-PIERCE FOR BELLINGHAM DEPARTMENT OF PUBLIC WORKS TITLED HARTFORD AVENUE WATER TREATMENT PLANT IMPROVEMENTS DATED SEPTEMBER 2013, 2015 INSTRUMENT SURVEY OF PROPOSED SOLAR ARRAY AREA BY HANCOCK ASSOCIATES, AND TOWN OF BELLINGHAM GIS. INTERSECTION OF EXISTING BITUMINOUS ACCESS ROAD AND PROPOSED GRAVEL ACCESS SHOWN BASED ON WRIGHT-PIERCE PLANS AND VISUAL RECONNAISSANCE.





OVERVIEW SHOWS PROPOSED ACCESS ROUTE OVERLAYED ON TOWN OF BELLINGHAM GIS MAP



PERMIT DEVELOPMENT PLAN

316 Hartford Ave
Bellingham, Massachusetts 02019

ASSESSORS:

MAP	BLOCK	LOT
0013	0003	0000
0013	0004	0000

PREPARED FOR:

385 Solar, LLC

265 State Street
Springfield, Massachusetts 01103

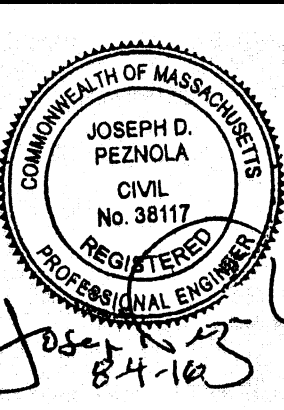
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SCALE:	AS SHOWN	DRAWN BY:	SD	
APPRVD. BY:	JP	CHECK BY:	JP	

HARTFORD AVE ACCESS EXHIBIT PLAN

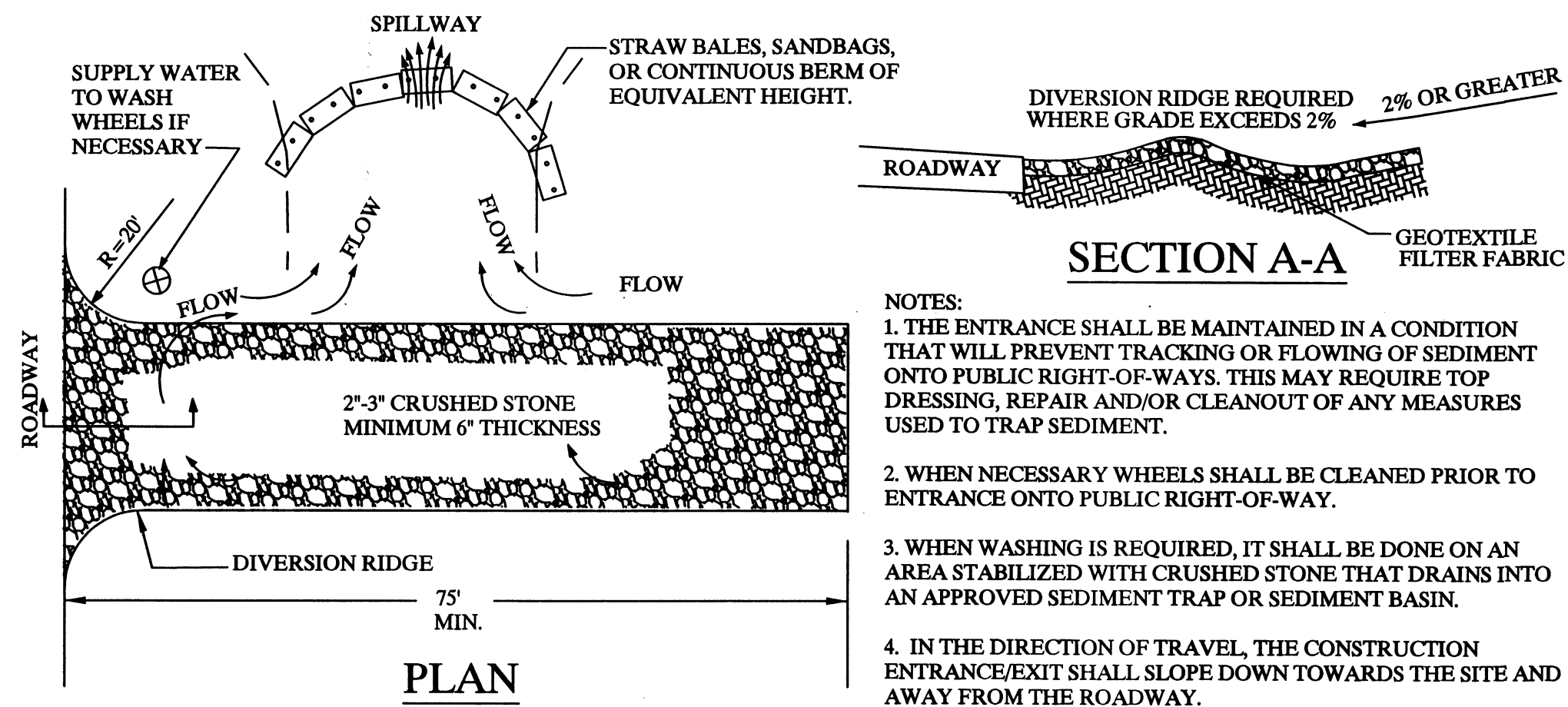
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DWG: 19472eng8.dwg

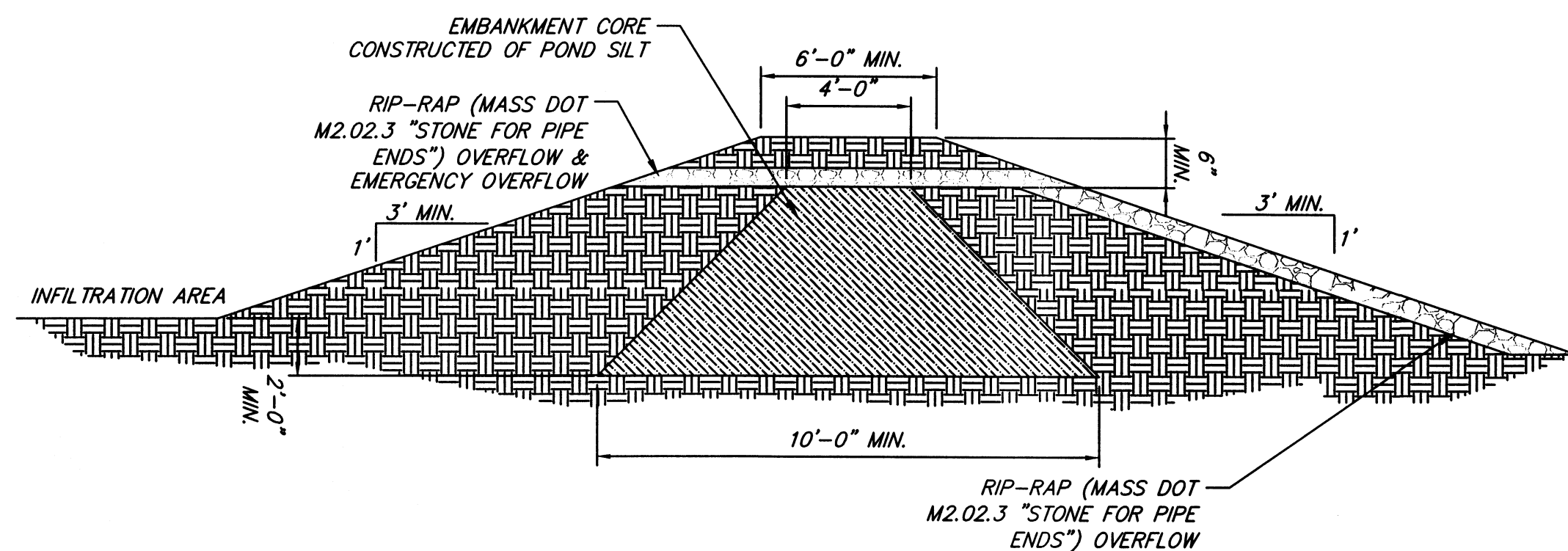
LAYOUT: (8)Access

SHEET: 8 OF 10

PROJECT NO.: 19472



TEMPORARY GRAVEL CONSTRUCTION ENTRANCE/EXIT
NOT TO SCALE



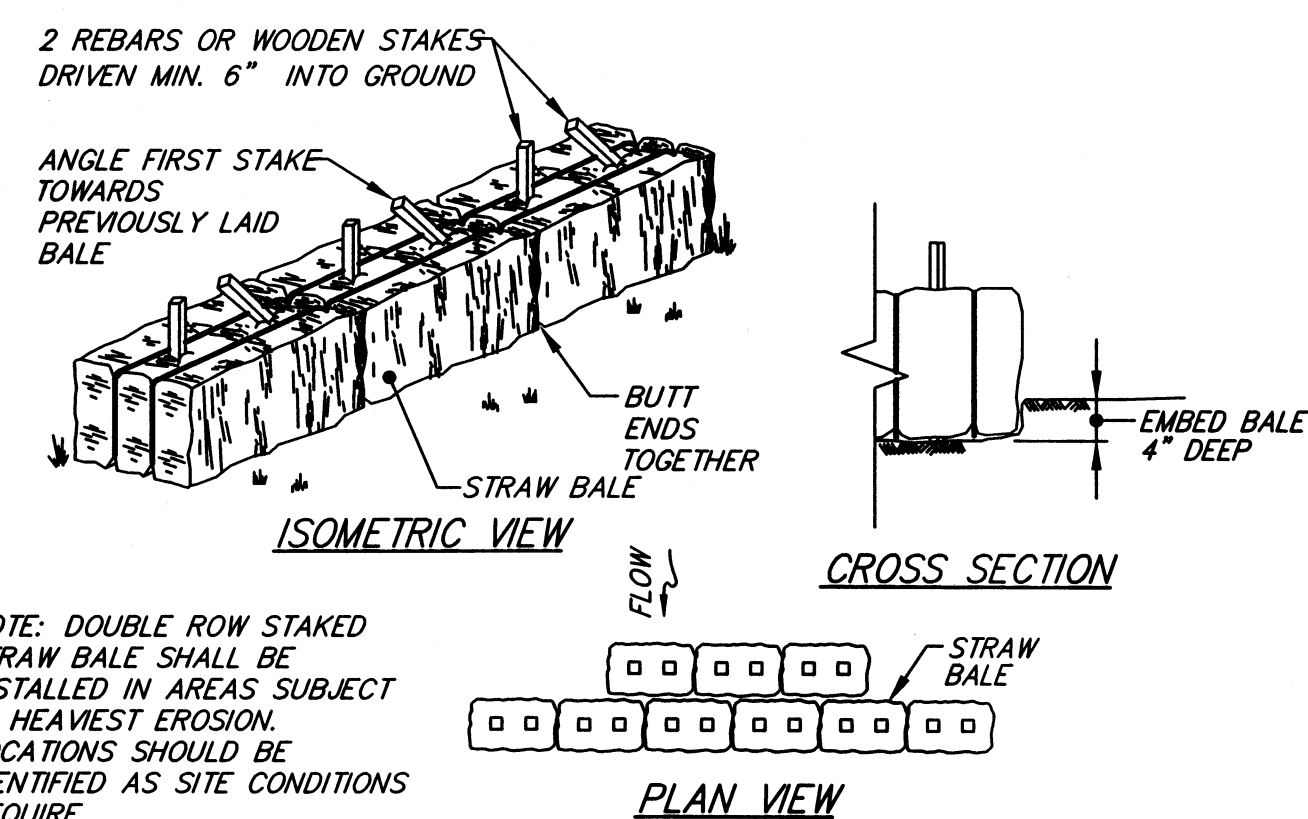
BERM AT INFILTRATION AREA
NOT TO SCALE

New England Semi-Shade Grass and Forbs Mix	
Botanical Name (Common Name)	
Virginia Wildrye (<i>Elymus virginicus</i>)	Canada Wild Rye (<i>Elymus canadensis</i>)
Shovely ticktrefoil (<i>Desmodium canadense</i>)	Partridge Pea (<i>Chamaecrista fasciculata</i>)
Creeping Red Fescue (<i>Festuca rubra</i>)	Common Milkweed (<i>Asclepias syriaca</i>)
Golden Alexanders (<i>Zizia aurea</i>)	Deer Tongue (<i>Panicum clandestinum</i>)
Beard Tongue (<i>Penstemon digitalis</i>)	White Avena (<i>Avena canadensis</i>)
Ox Eye Sunflower (<i>Helianthus annuus</i>)	Spotted Joe Pye Weed (<i>Eupatorium maculatum</i>)
Blue Wood Aster (<i>Aster cordifolius</i>)	Grassleaf Goldenrod (<i>Euthamia graminifolia</i>)
Eastern Columbine (<i>Aquilegia canadensis</i>)	Upland Bentrass (<i>Agrostis perennans</i>)
Blue Stem Goldenrod (<i>Solidago caesia</i>)	

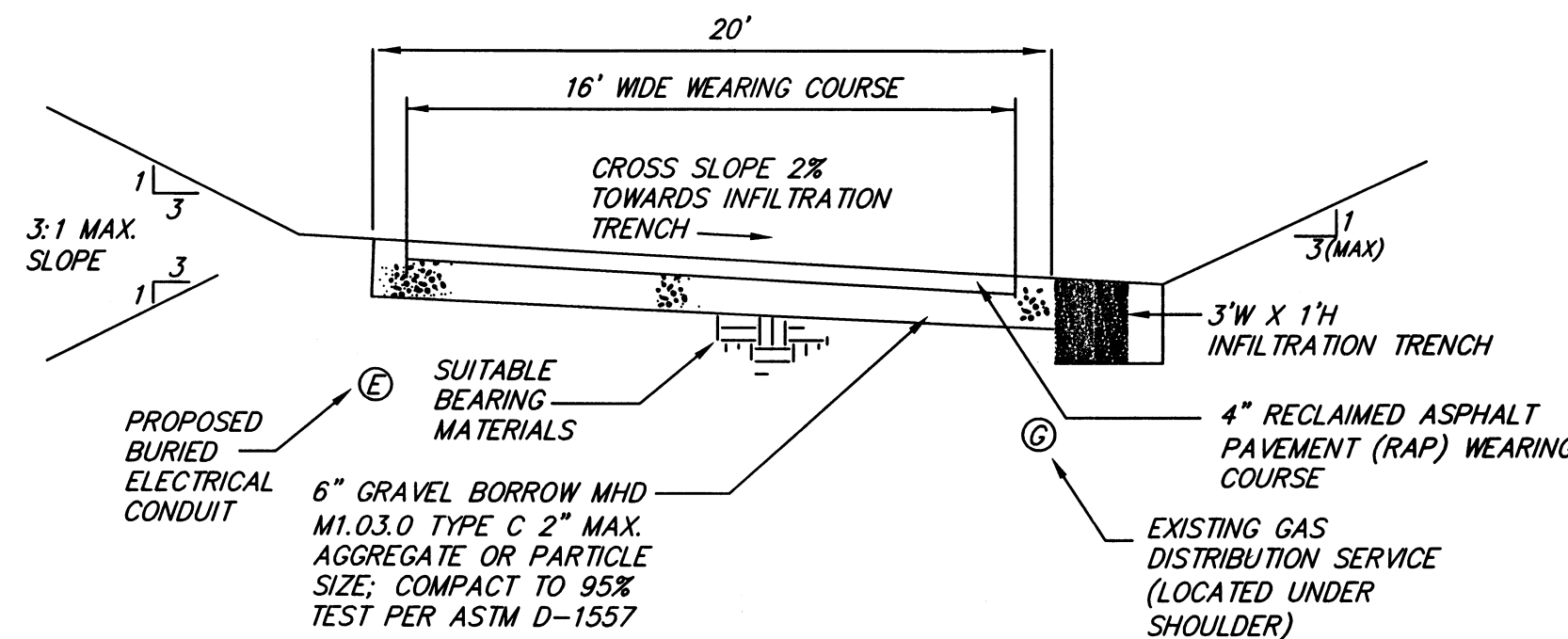
APPLICATION: 30 LBS/ACRE
1 LB/1450 SF

SEED MIX IS AVAILABLE FROM
NEW ENGLAND WETLAND
PLANTS (413) 548-8000.
APPROVED EQUAL MAY BE
SUBSTITUTED

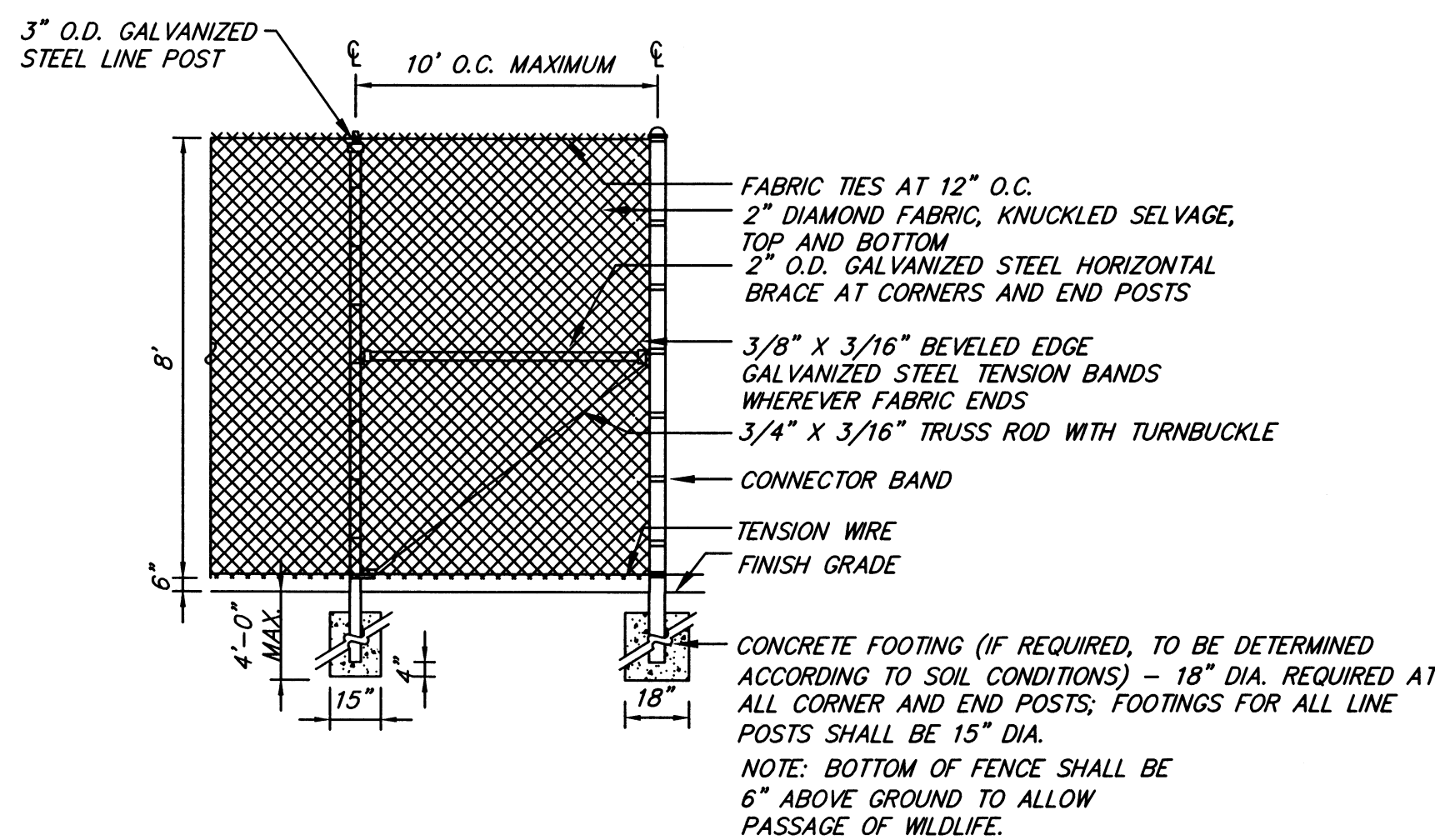
SEED MIX SPECIFICATIONS



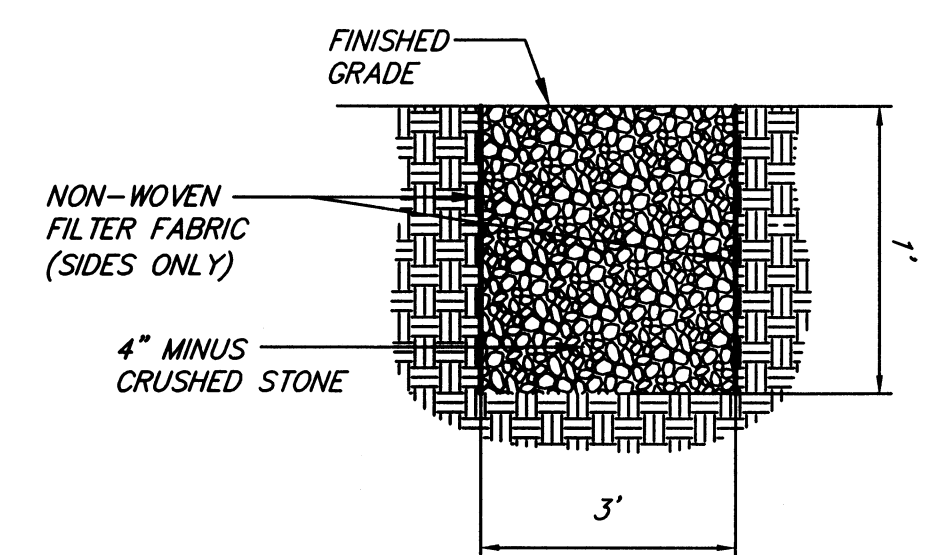
STRAW BALE BARRIER
NOT TO SCALE



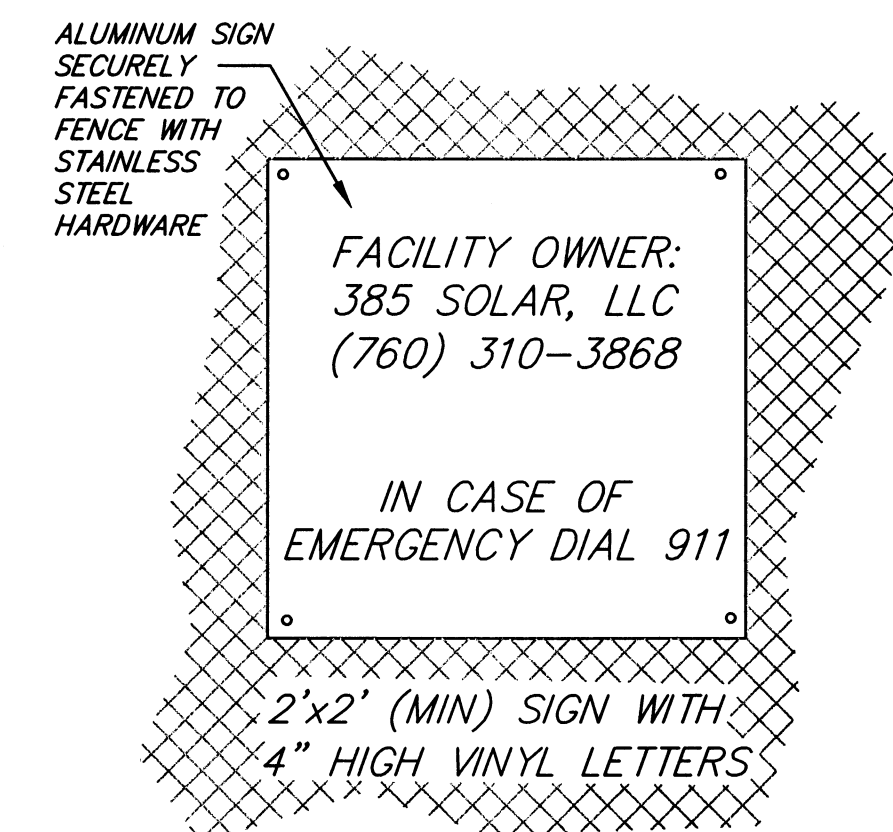
GRAVEL ACCESS ROAD
CROSS SECTION
NOT TO SCALE



CHAIN LINK FENCE
NOT TO SCALE

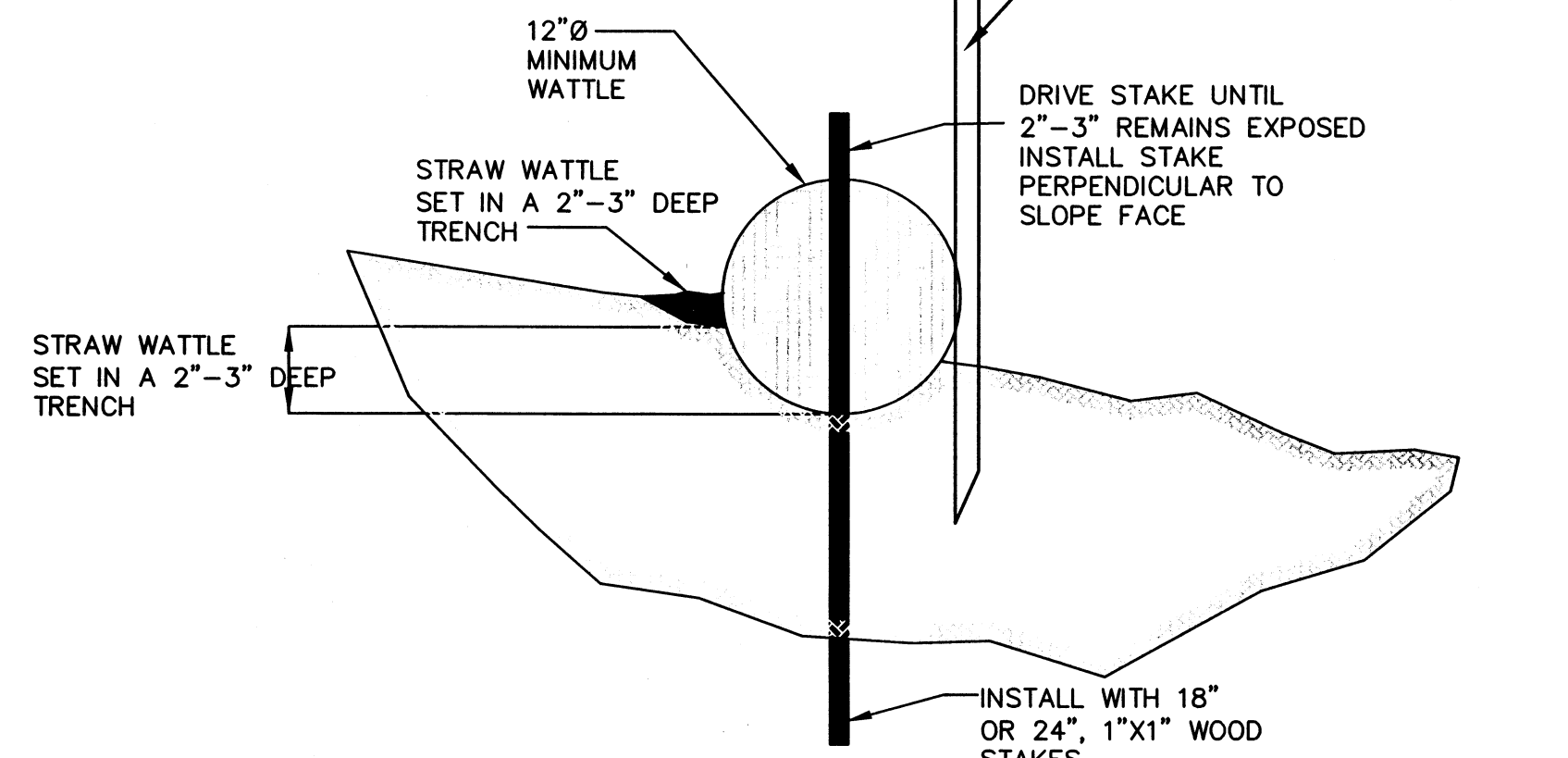


INFILTRATION TRENCH
NOT TO SCALE

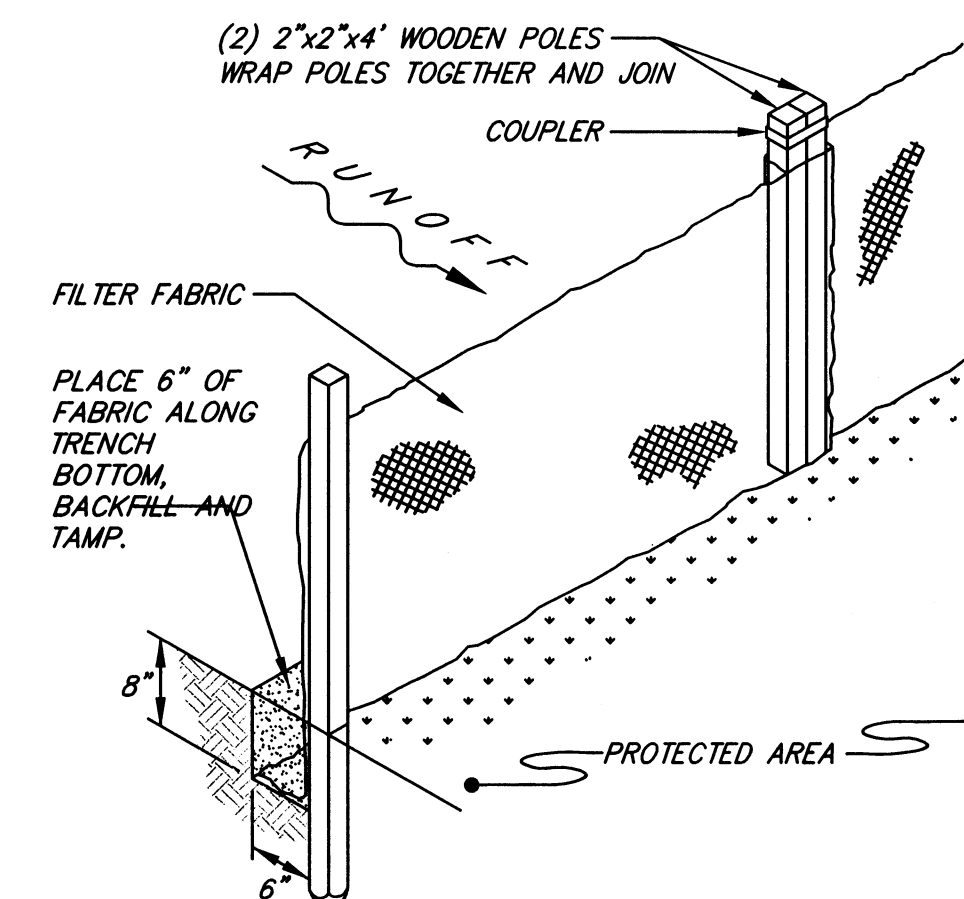


SIGN DETAIL
NOT TO SCALE

NOTE: STRAW WATTLE SHALL BE BIODEGRADABLE



EROSION CONTROL BARRIER
SILT FENCE WITH WATTLE
NOT TO SCALE



SILT FENCE BARRIER
ISOMETRIC VIEW
NOT TO SCALE

PERMIT DEVELOPMENT PLAN

316 Hartford Ave
Bellingham, Massachusetts 02019

ASSESSORS:

MAP	BLOCK	LOT
0013	0003	0000
0013	0004	0000

PREPARED FOR:

385 Solar, LLC

265 State Street
Springfield, Massachusetts 01103

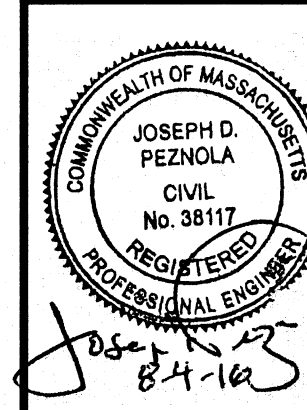
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DATE: 10/14/2015 DESIGN BY: BG

SCALE: AS SHOWN DRAWN BY: SD

APPRVD. BY: JP CHECK BY: JP

DETAILS

PLOT DATE: Aug 28, 2016 8:18 am
PATH: X:\Share\PROJECTS\19472-MAAS-Bellingham\DWG

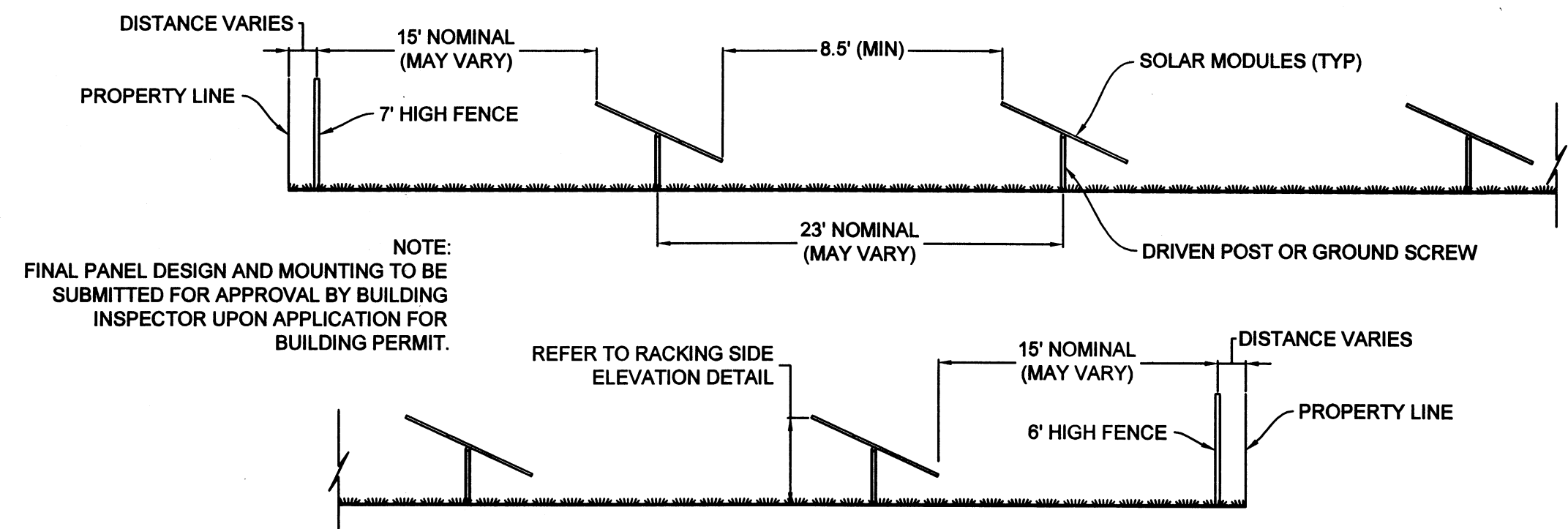
DWG: 19472eng8.dwg

LAYOUT: (9)Details

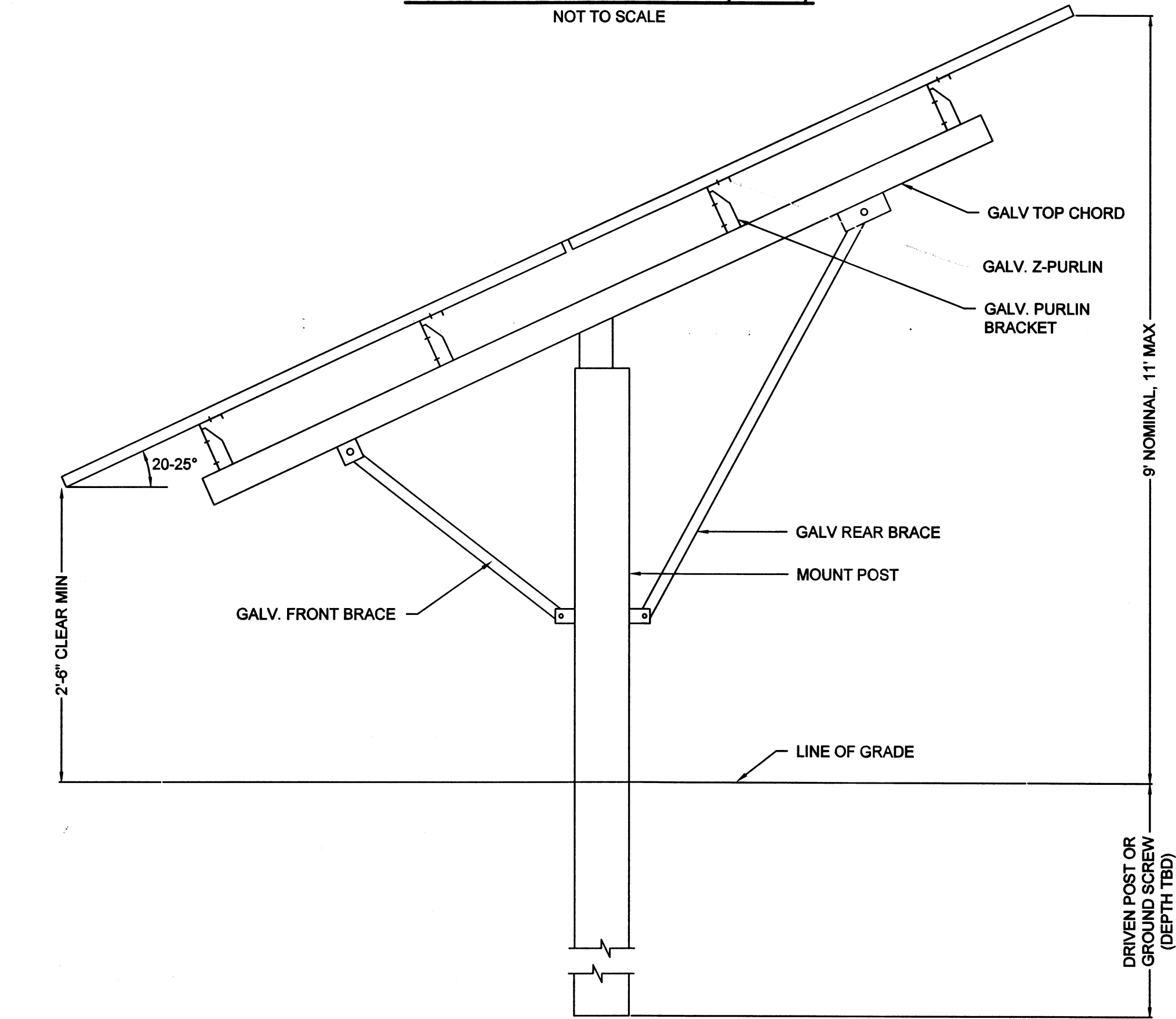
SHEET: 9 OF 10

PROJECT NO.:

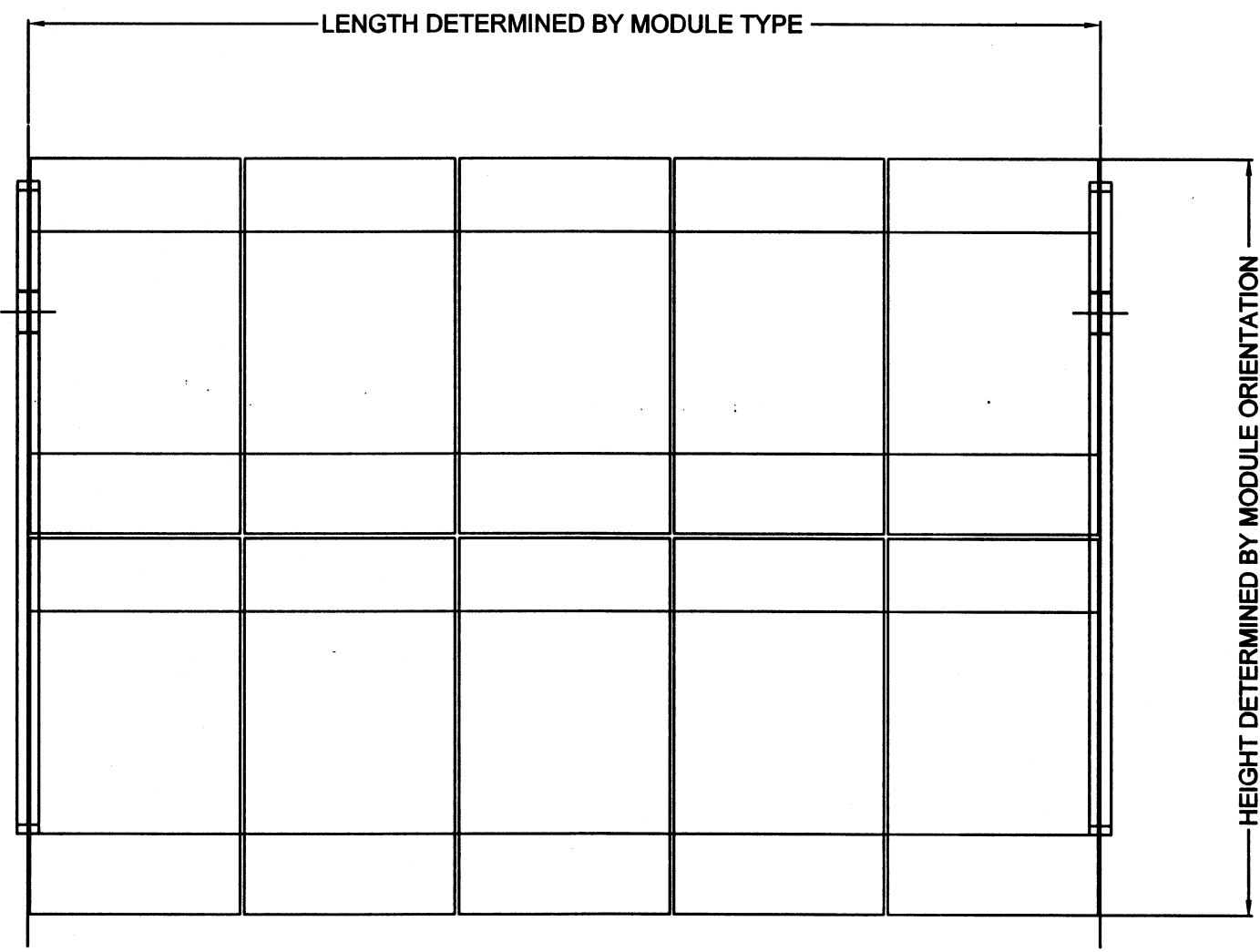
19472



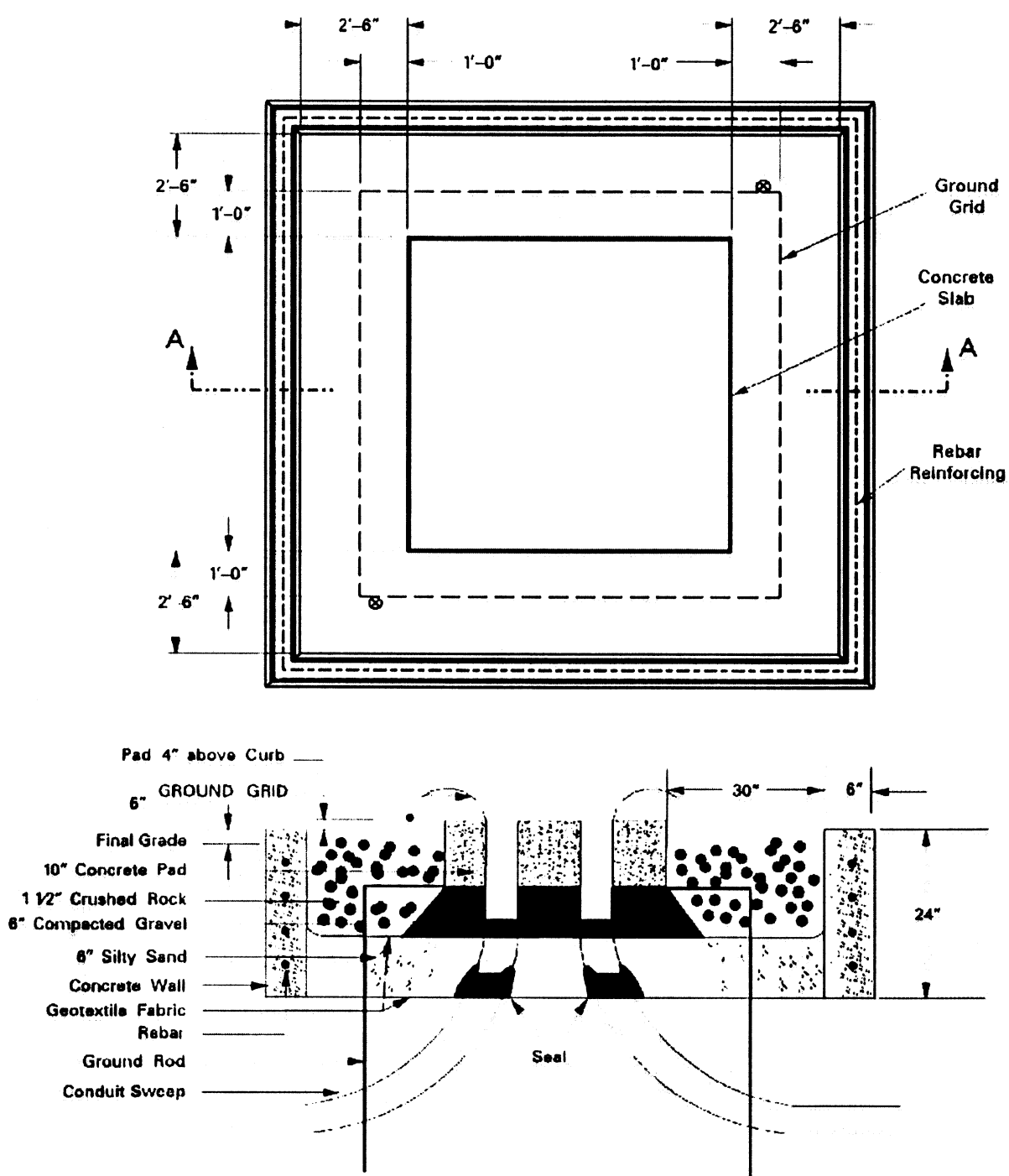
FIXED TILT SECTION (TYP.)
NOT TO SCALE



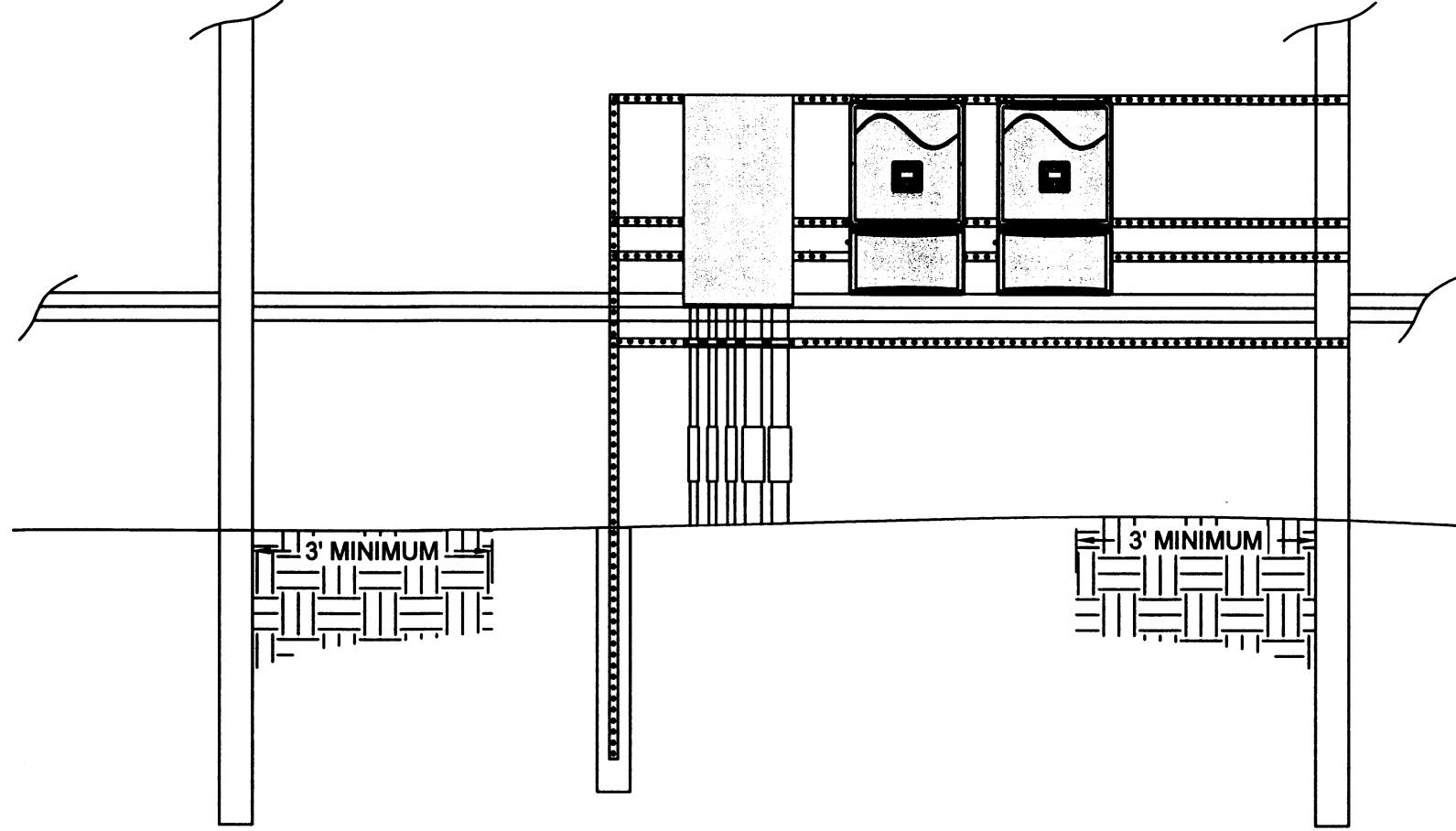
RACKING SIDE ELEVATION (TYP.)
NOT TO SCALE



PV MODULE (TYP.)
NOT TO SCALE

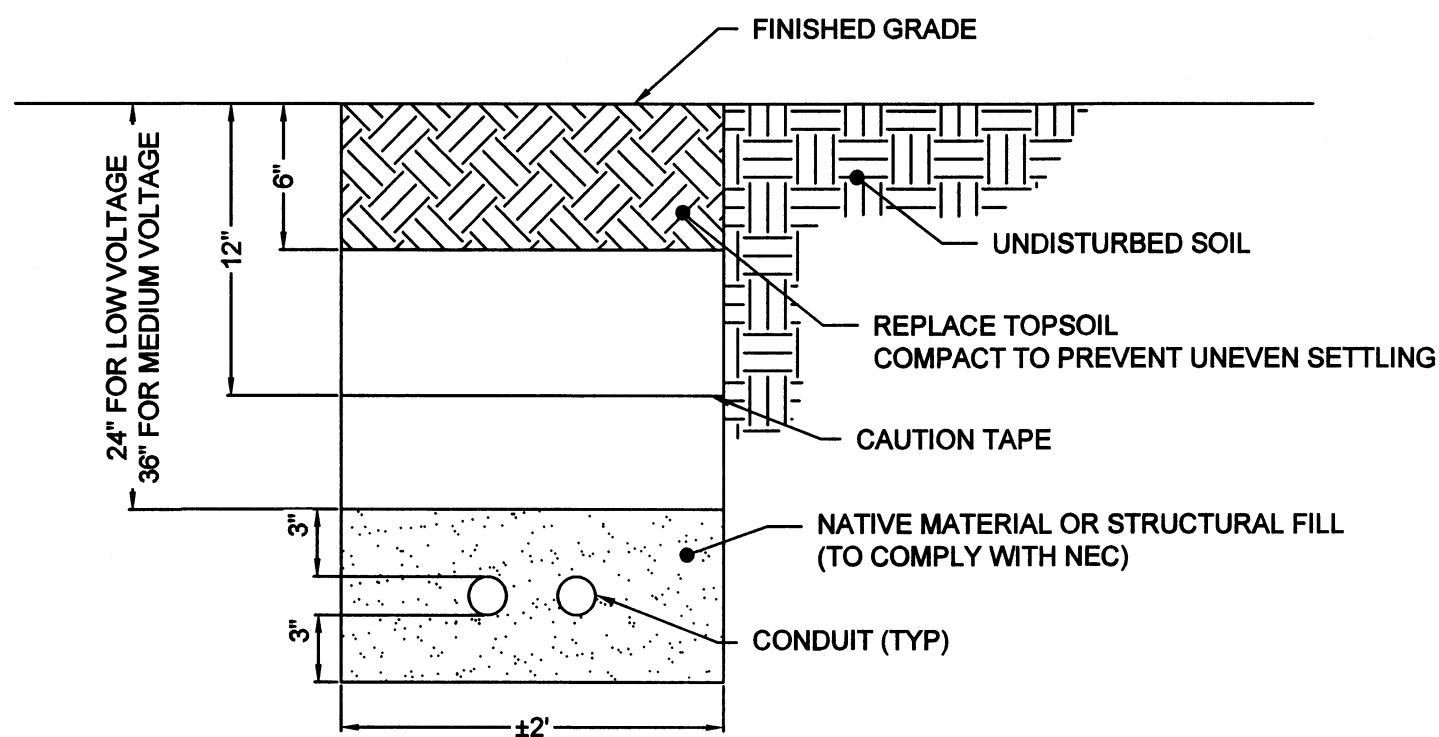


OIL CONTIANMENT CURB (TYP.)
NOT TO SCALE



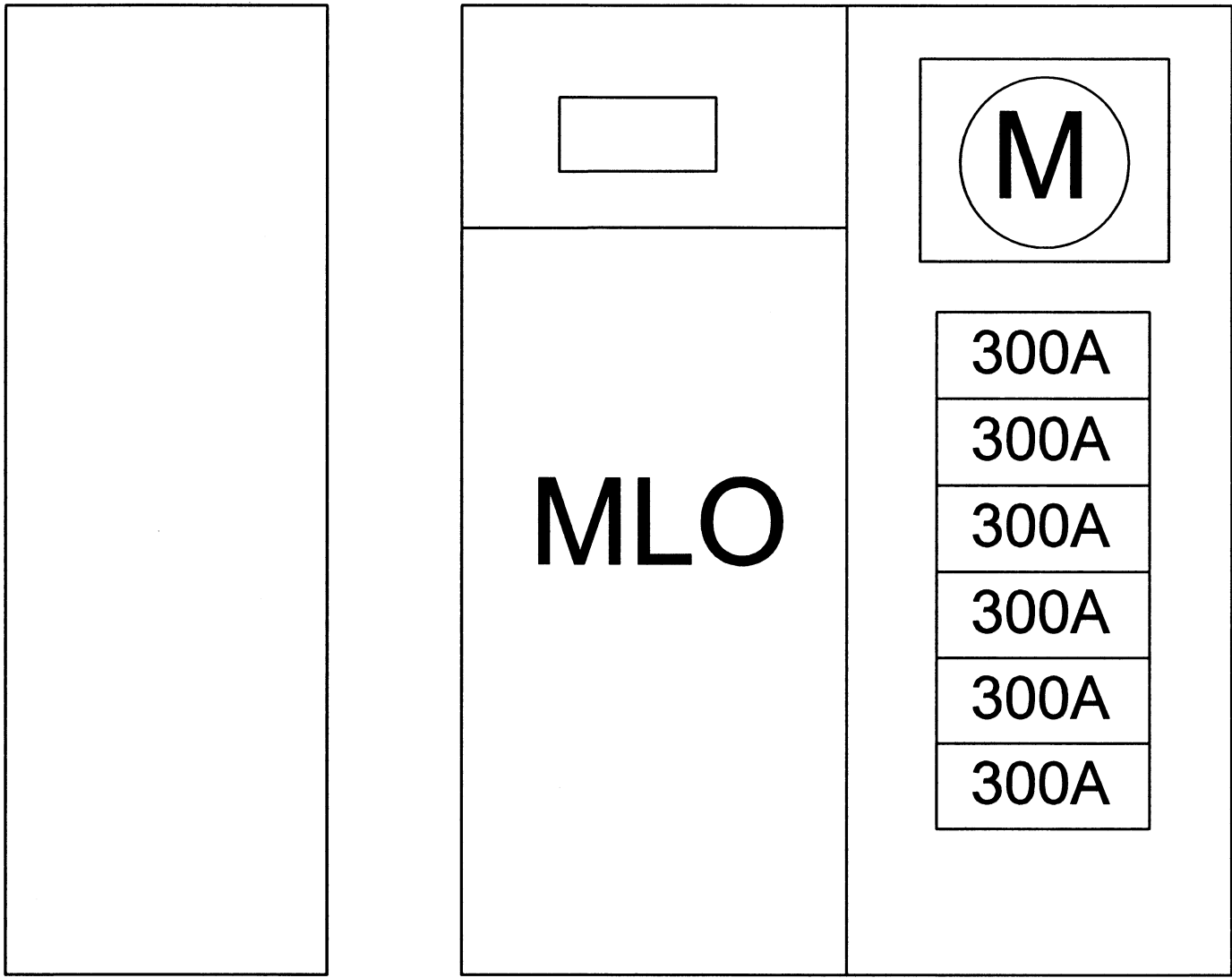
INVERTER MOUNTING (TYP.)
NOT TO SCALE

NOTE:
OIL CONTAINMENT CURB OR OTHER
APPROVED SPILL CONTROLS SUCH AS
CONTAINMENT AND DIVERSIONARY
STRUCTURES, LINED OIL CONTAINMENT
SUMPS, ABOVEGROUND CONTAINMENT
AREAS, OR CONTAINMENT BERMS OR
APPROVED EQUAL SHALL BE INSTALLED IF
REQUIRED FOR SPILL CONTAINMENT OF
HAZARDOUS MATERIALS. FINAL DESIGN AND
LOCATIONS TO BE SUBMITTED FOR
APPROVAL BY BUILDING INSPECTOR UPON
APPLICATION FOR BUILDING PERMIT.

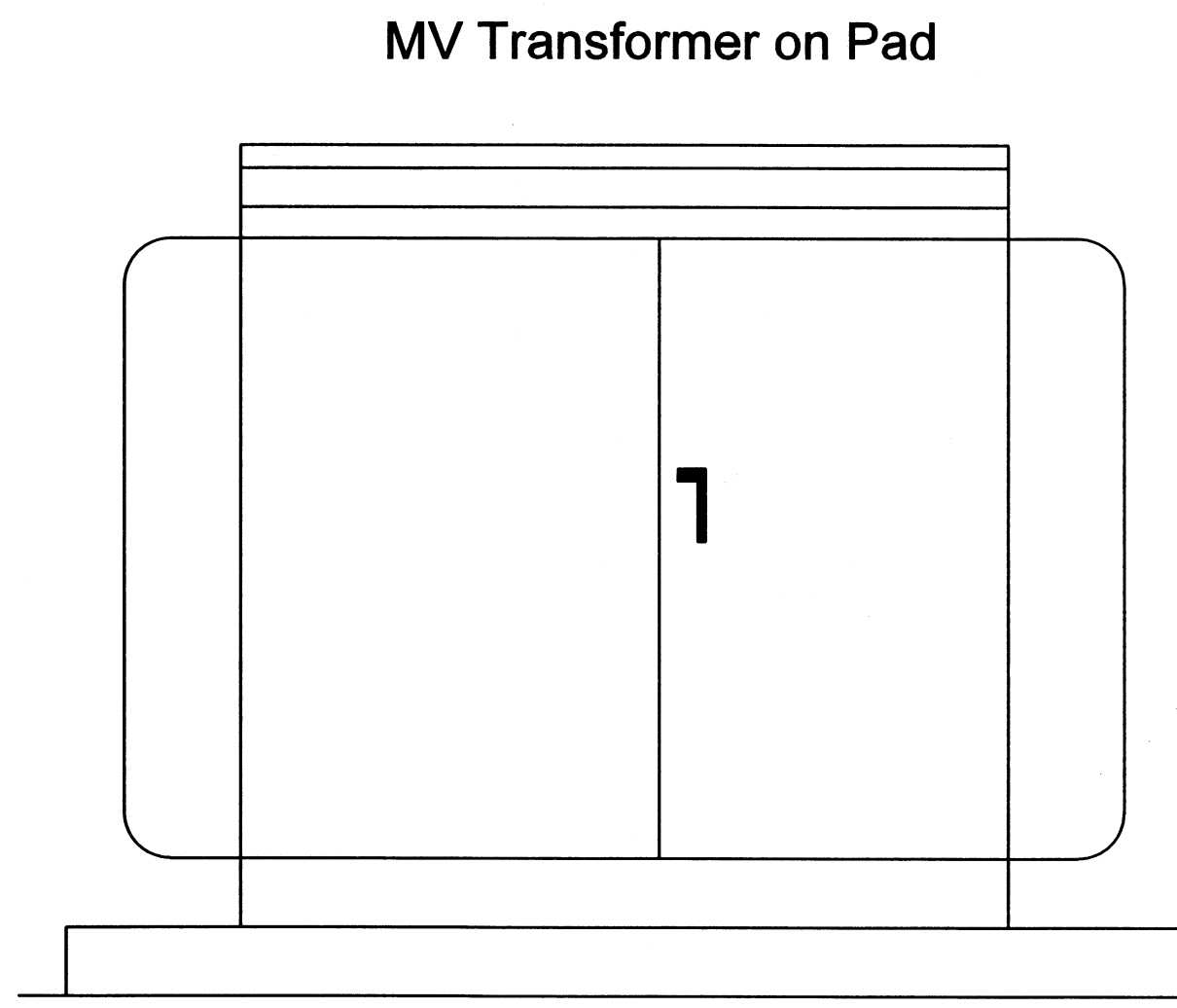


ELECTRICAL TRENCH (TYP.)
NOT TO SCALE

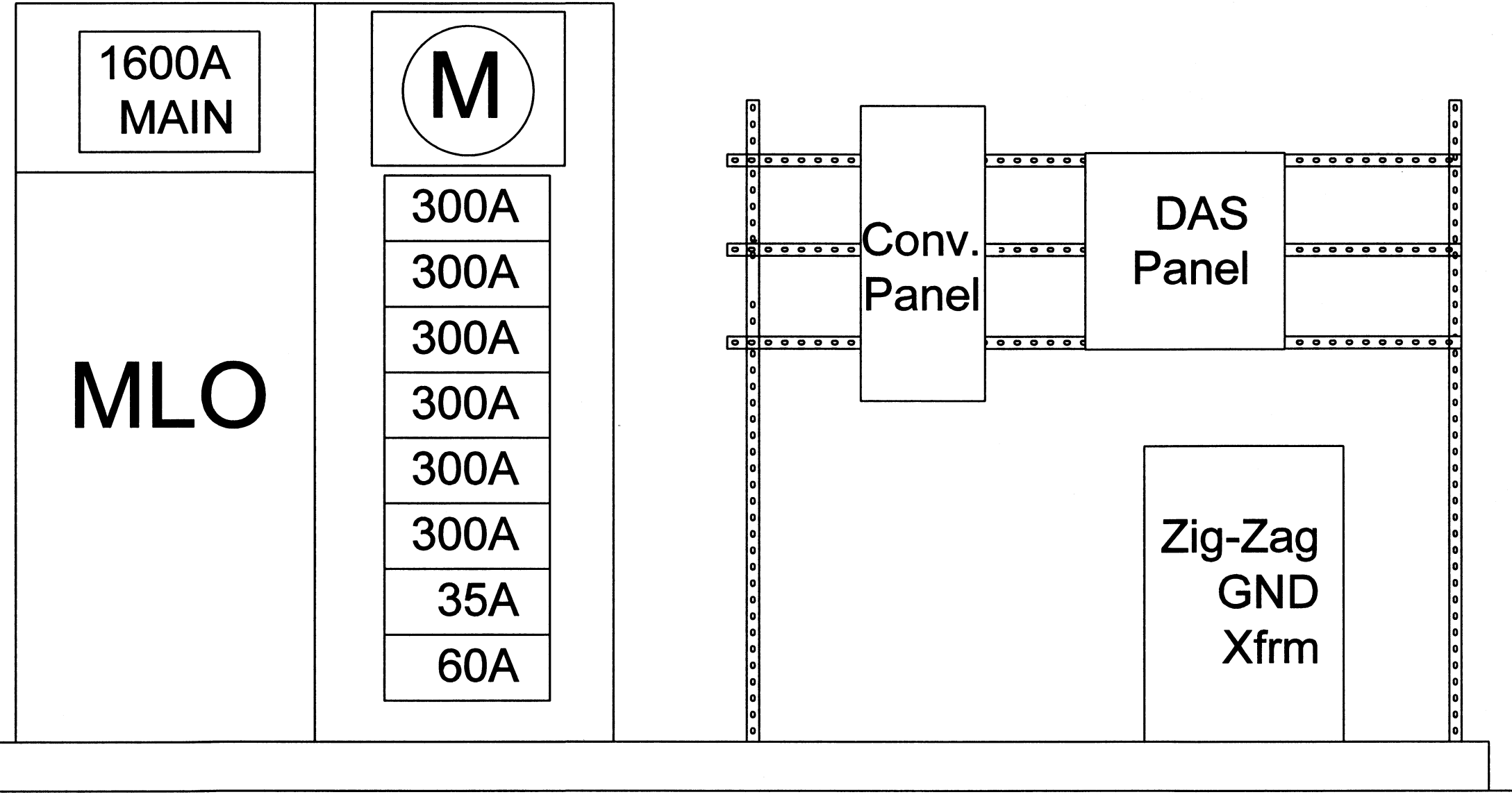
AC Switchgear Dimensions



AC Switchgear, Convenience Panel DAS Enclosure & Zig-Zag Xfrm



MV Transformer on Pad



PERMIT
DEVELOPMENT
PLAN

316 Hartford Ave
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0013	0004	0000

PREPARED FOR:

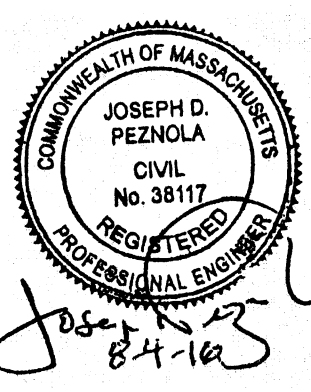
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265 State Street
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DETAILS

PLOT DATE: Aug 05, 2016 8:19 am
PATH: J:\Share\PROJECTS\19472-MASS-Bellingham\DWG\

DWG: 19472eng8.dwg
LAYOUT: (10)Details
SHEET: 10 OF 10

10

PROJECT NO.: 19472