

TO: Justin LaFountain, CZEO

FROM: Alter & Pearson, LLC

DATE: October 8, 2020

RE: *Supplemental Narrative for Revised Plans* - Proposed Motor Truck Terminal at 142 East Haddam Road (Highway Commercial Zone)

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Based on the Public Hearing held on September 22, 2020, the Applicant revised the plans as follows:

- Landscaping was increased along East Haddam Road and the proposed species were replaced with either native plants or cultivars of native plants. *Please see the Plant Schedule on Sheet 4 of 8 for additional information.* The new plan creates a complete row of landscaping along the front fence, while also allowing some visibility into the Site to meet the Applicants security concerns.
- Seed Mixture #1 (shaded in gray) was added to the plan to show the area to be regularly mowed within the Site's chain-link fence.
- The proposed equipment storage area and sand & stone material stockpile bins were moved further away from the limits of the upland review area.
- The bio-retention basins are redesigned, and maintenance schedules for the basins can be found at the top of *Sheet 4 of 8*.
  - **Basin #1** (adjacent to the employee parking area) was expanded.
    - The new design exceeds the requirements of the 2004 CT Stormwater Quality Manual, the water quality storage volume required is 287 c.f. and the redesigned basin holds 921 c.f. *See attached Stormwater Quality Calculations revised 10/6/2020.*
    - A 1-foot deep trench with round river rock was added to the east side of the basin.
    - Plants were added to the rim of the basin to provide additional on-site habitat.
    - The depth of the proposed soil mix was increased to a minimum depth of 24", consisting of 50% sand, 20% compost and 30% topsoil.
    - An overflow weir was added.
  - **Basin #2** (adjacent to the equipment storage area) was redesigned, pulled further away from the limits of the upland review area and additional grass area was added between the equipment storage area and the basin.
    - The new design exceeds the requirements of the 2004 CT Stormwater Quality Manual, the water quality storage volume required is 1,494 c.f. and the redesigned basin holds 1,555 c.f. *See attached Stormwater Quality Calculations revised 10/6/2020.*
    - A 1-foot deep trench with round river rock was added to the east side of the basin.
    - Plants were added to the rim of the basin to provide additional on-site habitat.
    - The depth of the proposed soil mix was increased to a minimum depth of 24", consisting of 50% sand, 20% compost and 30% topsoil.
    - An overflow weir was added which directs any overflow water towards the off-site woody vegetation.
- Shipping container storage bins were relocated southeasterly of the equipment storage area.
- The location of the two light poles was adjusted slightly, based on the revised Site layout.

Proposed Motor Truck Terminal  
Arborio Brothers, LLC  
142 East Haddam Road  
Salem, Connecticut  
Stormwater Quality Measures

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In order to meet the requirements of the 2004 CT Stormwater Quality Manual, the proposed stone trenches have been redesigned as bioretention areas to provide treatment for the first 1" of stormwater runoff. Once treated by a special soil mixture at the bottom of the rain gardens, the filtered, clean stormwater will infiltrate into the surrounding soils.

The proposed grading on the site will direct stormwater runoff from traffic areas to two locations, where the Water Quality Volume (WQV) will be captured and treated.

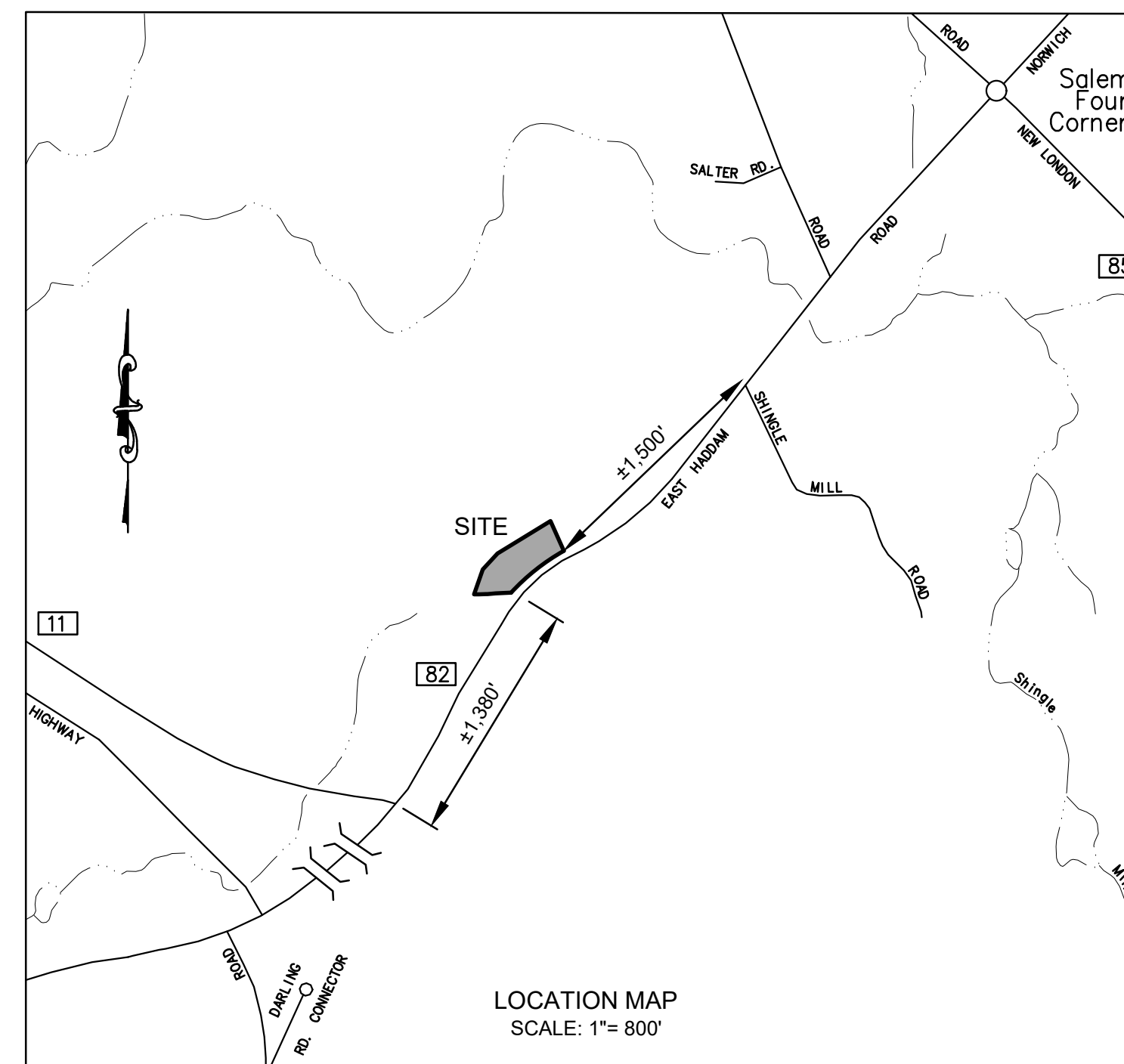
$WQV = 1''(R)(A)/12$   
 $R = 0.05 + 0.009(I)$   
 $I = \% \text{ impervious}$   
 $A = \text{Total Area}$

Area 1 – Southwest corner of site; 0.15 Ac (0.08 AC impervious, 0.07 AC pervious)  
 $I = 0.08/0.15 = 53.3\%$   
 $R = 0.05 + 0.009(53.3) = 0.53$   
 $WQV = 1(0.53)(0.15)/12$   
 $WQV = 0.0066 \text{ Ac-Ft or approximately } 287 \text{ Cubic Feet}$

Area 2 – Northwest corner of site; 0.67 Ac (0.42 Ac impervious, 0.25 Ac pervious)  
 $I = 0.42/0.67 = 62.7\%$   
 $R = 0.05 + 0.009(62.7) = 0.614$   
 $WQV = 1(0.614)(0.67)/12$   
 $WQV = 0.0343 \text{ Ac – Ft or approximately } 1,494 \text{ Cubic Feet}$

Bioretention areas on the plan have been sized to meet the minimum size volumes as noted above.

# PROPOSED MOTOR TRUCK TERMINAL 142 EAST HADDAM ROAD (CT RTE 82) SALEM, CONNECTICUT



## LIST OF DRAWINGS

1	COVER SHEET
2	500' ABUTTERS MAP
3	EXISTING CONDITIONS PLAN
4	SITE, GRADING & UTILITY PLAN
5	EROSION & SEDIMENTATION CONTROL PLAN
6	LIGHTING PLAN
7-8	CONSTRUCTION DETAILS

APPROVED BY THE SALEM PLANNING AND ZONING COMMISSION ON:

DATE

CHAIRMAN OR SECRETARY

### Property Owner & Applicant

Arborio Brothers, LLC  
231 Shunpike Road  
Cromwell, CT 06416

### Lighting Consultant

APEX Lighting Solutions, LLC  
20-30 Beaver Brook Road  
Wethersfield, CT 06109  
(TEL.) 860-632-8766  
(FAX) 860-632-8236

### Civil Engineer

CLOSE JENSEN & MILLER, P.C.  
1137 Silas Deane Highway  
Wethersfield, CT 06109  
(TEL.) 860-563-9375  
(FAX) 860-721-1802

### Soil Scientist

Richard Snarski, New England Environmental Services  
Blackledge River Nursery  
155 Henry Daniels Road  
Marlborough, CT 06447  
(TEL.) 860-918-1970

PLAN DATE: 12/06/19  
REVISED: 3/05/20 - FUEL TANK / MATERIAL STOCKPILES  
REVISED: 3/30/20 - PLANTINGS ADDED  
REVISED: 6/01/20 - MATERIAL STOCKPILES MOVED  
REVISED: 8/11/20 - PARKING REVISED  
REVISED: 9/15/20 - STAFF COMMENTS  
REVISED: 10/07/20 - STAFF & COMMISSION COMMENTS







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**LEGEND:**

GUY WIRE	—
ELECTRIC CONDUIT	—
UTILITY POLE	—
LIGHT POLE	—
YARD DRAIN	—
CATCH BASIN	—
DRAINAGE MANHOLE	—
SIGN	—
GATE	—
STORM PIPE	—
WATER LINE	—
CHAIN LINK FENCE	—
WIRE FENCE	—
GUIDE RAIL	—
TREE LINE	—

**MAP REFERENCES:**

- "RESUBDIVISION MAP, PROPERTY OF N/F OF FLORENCE ROBBINS TO BE CONVEYED TO PANFILI, #142 EAST HADDAM ROAD, ROUTE #82, SALEM, CONNECTICUT, SCALE: 1"= 20', DATED: SEPT. 25, 2005, LAST REVISED 1-21-06" BY ROBERT T. WEAVER, L.S.
- "STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION RIGHT OF WAY MAP, TOWN OF SALEM, NORWICH-HADLYME ROAD FROM THE HARTFORD-NEW HAVEN ROAD WESTERLY ABOUT 5,300 FEET, ROUTE NO. 153, SCALE: 1"= 40', DATE: SEPTEMBER 25, 1998".

DEEP TEST HOLE DATA / SOIL DESCRIPTIONS		
TEST HOLE #1	TEST HOLE #2	TEST HOLE #3
0" - 96" FILL	0" - 93" FILL	0" - 86" FILL
0" - 7" TOPSOIL 7" - 96" LIGHT BROWN SAND WITH COBBLES AND FINE GRAVEL • BURIED ROCK PILE?	0" - 2" TOPSOIL 2" - 93" LIGHT BROWN SAND WITH COBBLES AND FINE GRAVEL	0" - 3" TOPSOIL 3" - 31" 31" - 86" MIXTURE OF ORANGE BROWN SAND WITH COBBLES & ROCKS (UNCLEAR IF NATURAL)
MOTTLING: 62" TRACES	MOTTLING: 72" TRACES	MOTTLING: 53" TRACES
GW: N/O	GW: N/O	GW: N/O
LEDGE: N/O	LEDGE: N/O	LEDGE: N/O
ROOTS: TOPSOIL LAYER	ROOTS: N/O	ROOTS: N/O
RESTRICTIVE:	RESTRICTIVE:	RESTRICTIVE:

DATE: 8-11-2020

PERCOLATION TEST DATA			
PERC # 4	PERC RATE:		
DEPTH: 18.25"	40 MIN. / INCH		
PRESOAK TIME: 8:03 AM			
TIME	READING	TIME	READING
11:17	10"	12:17	12.25"
11:27	10.5"	12:27	12.5"
11:37	10.75"	12:37	12.75"
11:47	11"	12:47	13"
11:57	11.5"		
12:07	12"		

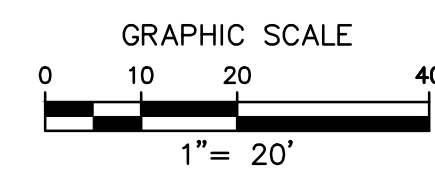
DATE: 8-11-2020

**NOTES:**

- THIS SURVEY AND MAP HAS BEEN PREPARED IN ACCORDANCE WITH SECTIONS 20-300B-1 THRU 20-300B-20 OF THE REGULATIONS OF CONNECTICUT STATE AGENCIES - "STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON OCT. 26, 2018. THIS IS AN IMPROVEMENT LOCATION SURVEY BASED ON A RESURVEY CONFORMING TO HORIZONTAL ACCURACY CLASS A-2 AND VERTICAL ACCURACY 1-2 AND IS INTENDED TO DEPICT THE POSITION, HORIZONTALLY AND, WHERE REQUIRED, VERTICALLY, BETWEEN PARTICULAR EXISTING OR PROPOSED IMPROVEMENTS WITH RESPECT TO THE APPLICABLE MUNICIPAL OR STATUTORY REQUIREMENTS.
- ELEVATIONS ARE BASED ON NAVD 1988 DATUM, COORDINATES ARE BASED ON NAD 1983 DATUM.
- PROPERTY IS LOCATED IN HIGHWAY COMMERCIAL ZONE.
- THIS SURVEY IS NOT VALID WITHOUT A LIVE SIGNATURE AND EMBOSSED SEAL.

APPROVED BY THE SALEM PLANNING AND ZONING COMMISSION ON:

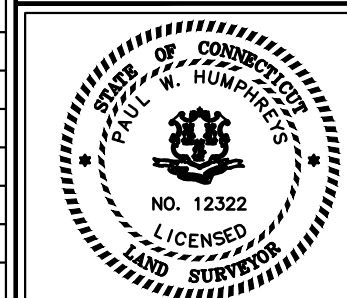
DATE \_\_\_\_\_ CHAIRMAN OR SECRETARY \_\_\_\_\_



TO MY KNOWLEDGE AND BELIEF THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON.

By *Paul W. Humphreys*  
PAUL W. HUMPHREYS, L.S.  
LIC. NO. 12322

No.	Date	Description
3	10/07/20	OWNERSHIP UPDATED
2	9/15/20	LEACHING GALLEYS REVISED
1	8/11/20	SEPTIC TANK LOCATION REVISED
Revisions		
No.	Date	Description
Revisions		



*B. J. M.* **Close, Jensen & Miller, P. C.**  
Consulting Engineers, Land Planners & Surveyors  
1137 Silas Deane Highway, Wethersfield, Conn. 06109, Tel. (860)563-9375

**EXISTING CONDITIONS PLAN**

PROPERTY OF  
**ARBORIO BROTHERS, LLC**  
142 EAST HADDAM ROAD  
SALEM, CONNECTICUT

Compiled	E.T.J.
P.C. Check	J.T.
Designed	E.T.J.
Drawn	E.T.J.
Checked	P.W.H.
Scale	1"= 20'
Date	12/08/19
Sheet	Of
<b>3</b>	<b>8</b>
Job No.	
File No.	



**LEGEND:**

GUY WIRE	ECO
ELECTRIC CONDUIT	CB
UTILITY POLE	YD
LIGHT POLE	CB
YARD DRAIN	YD
CATCH BASIN	CB
DRAINAGE MANHOLE	CB
SIGN	CB
GATE	CB
STORM PIPE	W
WATER LINE	W
CHAIN LINK FENCE	W
WIRE FENCE	W
GUIDE RAIL	W
TREE LINE	W

**BIO-RETENTION BASIN MAINTENANCE SCHEDULE**

- AFTER INITIAL PLANTING, PROVIDE SUPPLEMENTAL WATERING TO PLANTINGS IN THE ABSENCE OF NATURAL RAINFALL TO INSURE PLANTINGS RECEIVE A MINIMUM OF 1" OF RAINFALL PER WEEK FOR A MINIMUM OF ONE TO TWO MONTHS.
- CHECK BIO-RETENTION BASIN EDGES FOR EROSION WHEN STORM RUNOFF ENTERS OR EXITS THE AREA. REPAIR WASHOUTS, REPOSITION OR ADD STONE AS MAY BE REQUIRED TO DISSIPATE ENERGY.
- REMOVE WEEDS, INVASIVES, ETC.
- REMOVE DEAD AND/OR DYING SHRUB BRANCHES.
- PRUNE PLANTINGS AS REQUIRED TO MAINTAIN DESIRED HEIGHT.
- PRUNE HERBACEOUS PERENNIALS (RUSSIAN SAGE) IN FALL. DO NOT CUT TO GROUND.
- REMOVE ANY SEDIMENT IN BIO-RETENTION BASIN, WHICH MAY HAVE ACCUMULATED IN BOTTOM OF BASIN OVER TIME FROM SITE RUNOFF OR EROSION FORCES.
- PROVIDE VEGETATION MAINTENANCE OF BASIN GRASSES A MINIMUM OF TWICE PER GROWING SEASON (I.E. JULY / OCTOBER) BY MOWING.
- CHECK INFILTRATION OF BIO-RETENTION BASIN BOTTOM ON AN ANNUAL BASIS. AERATE SOIL AS MAY BE REQUIRED TO REDUCE COMPACTION WHICH MAY HAVE ACCRUED OVER TIME.
- INSPECT BIO-RETENTION BASIN FREQUENTLY FOR ANY ACCUMULATIONS OF LEAVES, WIND BLOWN TRASH, ETC. REMOVE ANY DEBRIS TO MAINTAIN FUNCTIONALITY OF BASIN.

**GENERAL NOTES:**

- ELEVATIONS ARE BASED ON NAVD 1988.
- BEARINGS SHOWN ARE BASED ON STATE OF CONNECTICUT GRID COORDINATE SYSTEM NAD 83.
- ALL MONUMENTS AND IRON PINS TO BE SET SHALL MEET OR EXCEED THE MATERIAL REQUIREMENTS AS SET FORTH BY THE TOWN OF SALEM.
- EXISTING TREES AND SHRUBS SHALL BE PRESERVED AS SHOWN ON THE PLANS.
- THE UTILITIES ON THIS PLAN HAVE BEEN OBTAINED FROM AVAILABLE RECORDS AND HAVE BEEN LOCATED IN THE FIELD WHERE POSSIBLE. THE ACTUAL LOCATION OF THESE UTILITIES SHOULD BE VERIFIED BY THE CONTRACTOR.
- ALL PROPOSED ELECTRICAL CONDUITS FOR SITE LIGHTING LOCATED WITHIN THE DEVELOPMENT LIMITS SHALL BE LOCATED UNDERGROUND.
- ALL CONSTRUCTION METHODS AND MATERIALS SHALL CONFORM WITH THE SPECIFICATIONS FOR THE TOWN OF SALEM, CONDOT FORM 818, LATEST EDITION, AND RESPECTIVE UTILITY COMPANIES.
- ALL TRENCHES SHALL BE BACK FILLED WITH GRAVEL. NO OVERNIGHT TRENCHES SHALL BE PERMITTED.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION AND ANY DISCREPANCIES SHALL BE REPORTED TO THE DESIGN ENGINEER AND TOWN ENGINEERING CONSULTANT BEFORE PROCEEDING.
- ALL UNSUITABLE MATERIAL DISCOVERED DURING CONSTRUCTION SHALL BE REMOVED OR DISPOSED OF IN A SUITABLE MANNER. SAID MATERIAL SHALL INCLUDE TREES, BRUSH, ORGANIC MATERIAL, ETC.
- SITE LIGHTING CONSISTS OF CUT OFF LUMINAIRES MOUNTED ATOP WOOD POLES. THE SITE LIGHTING AS REPRESENTED ON THE PHOTOMETRICS PLAN IS ONLY FOR THE FIXTURE SPECIFIED AND IS NOT INTERCHANGEABLE WITH OTHER FIXTURES. ALL LIGHTING SHALL BE FROM APEX LIGHTING SOLUTIONS
- SOLID WASTE DISPOSAL SHALL BE DUMPSTER WITH PRIVATE COLLECTION.

ZONING TABLE		
ZONE: HIGHWAY COMMERCIAL	REQUIRED	PROPOSED
MIN. LOT FRONTAGE	200'	373.0'
MIN. FRONT SETBACK	50'	68.0'
MIN. SIDE SETBACK	25'	50.7'
MIN. REAR SETBACK	25'	96.4'
MAX. LOT COVERAGE	25%	2.6%
MIN. LOT SIZE	80,000 S.F.	93,154 S.F.
MAX. BUILDING HEIGHT	35'	16.4' (EXIST.)
MIN. LOADING / UNLOADING AREA	400 S.F. FOR EACH 15,000 S.F. OF FLOOR AREA OR 1 SPACE	0
MIN. PARKING SPACES	AS DETERMINED BY THE P&Z COMMISSION	6-11 TRUCKS & 11 CARS

**PLANT SCHEDULE**

QUANTITY	LATIN NAME COMMON NAME	SIZE	TYPE	COMMENTS
<b>DECIDUOUS TREES</b>				
4	<i>Carpinus Caroliniana</i> American Hornbeam	2" - 2 1/2" Caliper	B & B	Straight Trunk
<b>CONIFEROUS EVERGREENS</b>				
8	<i>Juniperus Virginiana 'Taylor'</i> Taylor Eastern Red Cedar	4' - 5' Height	Container	Dense
<b>BROADLEAVED EVERGREEN SHRUBS</b>				
24	<i>Ilex Glabra 'Compacta'</i> Compact Inkberry	#3	Container	Dense
<b>DECIDUOUS SHRUBS</b>				
13	<i>Comptonia Perigrina</i> Sweetfern	#2	Container	
23	<i>Viburnum Trilobum 'Compactum'</i> Compact American Cranberry	#3	Container	
<b>HERBACEOUS PERENNIALS</b>				
17	<i>Perovskia Atriplicifolia</i> Russian Sage	#1	Container	

**INVENTORY OF STORAGE OF HAZARDOUS MATERIALS**

MATERIAL	USE	VOLUME (MAXIMUM)	NOTES
CHEVRON 1000 THF	TRACTOR HYDRAULIC FLUID & WET BRAKE	≤ 5 GAL.	STORED IN BUILDING
CHEVRON SUPREME MOTOR OIL	AUTOMOTIVE ENGINE OIL	≤ 5 GAL.	STORED IN BUILDING
DIESEL FUEL	FUEL	925 GAL.	PROPOSED SINGLE WALLED FUEL TANK WITH A COVERED STEEL SECONDARY CONTAINMENT SYSTEM TO BE LOCATED ADJACENT TO BUILDING. FUEL TO BE DELIVERED BY COMMERCIAL FUEL TRUCK. EMERGENCY SPILL RESPONSE KIT TO BE LOCATED ON-SITE

**SEED MIXTURE #1 (SHADED AREAS):**

- 30% DALLAS TALL FESCUE
- 30% FALCON IV TALL FESCUE
- 30% SUNGAZER TALL FESCUE
- 10% SPF 30 TEXAS HYBRID KY BLUEGRASS

SEED AT THE RATE OF 3-4 LBS./1,000 SQ.FT. SEED AVAILABLE AT THE CHAS. C. HART SEED CO. WETHERSFIELD, CT.

**SEED MIXTURE #2 (ALL OTHER AREAS):**

- 35% EPIC CREEPING RED FESCUE
- 25% VESPER VELVET BENTGRASS
- 15% INDIANGRASS
- 10% PARTRIDGE PEA
- 10% APPALACHIAN KENTUCKY BLUEGRASS
- 5% CANADA WILD RYE

SEED AT THE RATE OF 3-4 LBS./1,000 SQ.FT. SEED AVAILABLE AT THE CHAS. C. HART SEED CO. WETHERSFIELD, CT.

APPROVED BY THE SALEM PLANNING AND ZONING COMMISSION ON:

DATE CHAIRMAN OR SECRETARY

No.	Date	Description
3	6/01/20	MATERIAL STOCKPILES MOVED
2	3/30/20	ADDED PLANTINGS
1	3/05/20	FUEL TANK / MATERIAL STOCKPILES
Revisions		
6	10/07/20	STAFF & COMMISSION COMMENTS
5	9/15/20	STAFF COMMENTS
4	8/11/20	PARKING REVISED
Revisions		



**B. J. Close, Jensen & Miller, P. C.**  
Consulting Engineers, Land Planners & Surveyors  
1137 Silas Deane Highway, Wethersfield, Conn. 06109, Tel. (860)563-9375

**SITE, GRADING & UTILITY PLAN**

PROPERTY OF ARBORIO BROTHERS, LLC  
**PROPOSED MOTOR TRUCK TERMINAL**  
FOR ARBORIO BROTHERS, LLC  
142 EAST HADDAM ROAD  
SALEM, CONNECTICUT

Compiled	E.T.J.
P.C. Check	P.C. Check
Designed	K.R.J.
Drawn	E.T.J.
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**EROSION AND SEDIMENTATION CONTROL NARRATIVE**

**DURING CONSTRUCTION**

IN GENERAL, THE EROSION AND SEDIMENTATION CONTROL DEVICES AND MEASURES AS SHOWN ON THESE PLANS SHALL BE INSTALLED AND MAINTAINED IN CONFORMANCE TO THE "GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL - " PUBLISHED BY THE CONNECTICUT COUNCIL OF SOIL AND WATER CONSERVATION, MAY 2002, LATEST EDITION.

IT MAY BE NECESSARY TO USE ADDITIONAL EROSION CONTROLS OTHER THAN THOSE INDICATED ON THE PLANS AS FIELD CONDITIONS WARRANT OR AS DIRECTED BY THE TOWN OF SALEM ZONING ENFORCEMENT OFFICER, WETLANDS AGENT OR OTHER DULY AUTHORIZED REPRESENTATIVE. ADDITIONAL EROSION CONTROLS MAY CONSIST OF, BUT SHALL NOT BE LIMITED TO, CHECK DAMS, HAY BALES, FILTER FABRICS, ETC. ALL EROSION CONTROLS SHALL BE PROPERLY INSTALLED, MONITORED AND MAINTAINED AS FOLLOWS UNTIL ALL EXPOSED AREAS ARE PERMANENTLY STABILIZED:

**SILT FENCING:**

- CHECK ONCE PER WEEK AND WITHIN 24 HRS. OF A 0.1 INCH OR GREATER STORM EVENT.
- DO NOT ALLOW SEDIMENT TO BUILD UP MORE THAN ONE THIRD THE HEIGHT OF THE SILT FENCE.
- REMOVE SEDIMENT AS REQUIRED AND RESTAPLE AND/OR REPLACE SILT FENCING AS REQUIRED.
- REPLACE ALL SILT FENCING WHICH REMAINS IN THE FIELD FOR PERIODS OF TIME GREATER THAN ONE YEAR. REPEAT AS REQUIRED.

**STONE ANTI-TRACKING PAD:**

- CHECK ONCE PER WEEK AND WITHIN 24 HRS. OF A 0.1 INCH OR GREATER STORM EVENT.
- IF SEDIMENT BUILD UP CAUSES STONE TO LOSE ITS EFFECTIVENESS, REMOVE EXISTING STONE & FILTER FABRIC AND REPLACE WITH CLEAN FILTER FABRIC AND STONE AND REPEAT AS REQUIRED.

**HAYBALE DAM:**

- CHECK ONCE PER WEEK AND WITHIN 24 HRS. OF A 0.1 INCH OR GREATER STORM EVENT.
- REMOVE DEBRIS AND REPLACE BALES WHICH IMPEDE STORM FLOW OR DRAINAGE. RESTAKE AS REQUIRED.

**STONE CHECK DAMS:**

- CHECK DAMS AT LEAST ONCE PER WEEK AND WITHIN 24 HRS. OF A 0.1 INCH OR GREATER STORM EVENT.
- REMOVE SEDIMENT AND DEBRIS WHEN DEPOSIT DEPTH REACHES HALF OF THE CHECK DAM.
- REPLACE OR REPAIR CHECK DAM WITHIN 24 HRS. OF OBSERVED FAILURE.
- REMOVE ONCE VEGETATED AREAS ARE STABILIZED.

**VEGETATED AREAS:**

- CHECK ONCE PER WEEK AND WITHIN 24 HRS. OF A 0.1 INCH OR GREATER STORM EVENT.
- RESEED AS REQUIRED.

SEED AND TACKIFIER SHALL BE APPLIED BY APPROVED HYDRO-SEEDING METHODS. WATER SEEDED AREA UNTIL A UNIFORM AND VIGOROUS GROWTH OF TURF HAS BEEN ESTABLISHED. MONITOR UNTIL STABILIZED. REPEAT RE-SEEDING AS REQUIRED. DURING CONSTRUCTION, ARBORIO CORPORATION SHALL BE RESPONSIBLE FOR ALL MONITORING AND MAINTENANCE REQUIREMENTS OF ALL EROSION CONTROLS.

**POST CONSTRUCTION**

AT THE CONCLUSION OF CONSTRUCTION THE FOLLOWING EROSION CONTROLS MUST BE MONITORED AS FOLLOWS:

**VEGETATED AREAS:**

- CHECK ONCE PER MONTH FOR 3 MONTHS AND WITHIN 24 HRS. OF A 0.1 INCH OR GREATER STORM EVENT. SEED WITH MIXTURE AS NOTED ON DESIGN PLANS. MONITOR UNTIL STABILIZED.

**SEED BED PREPARATION**

1. THE TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED ON THE DESIGNATED AREAS AND EVENLY SPREAD TO A DEPTH OF AT LEAST FOUR (4) INCHES. IT SHALL BE IN SUFFICIENT DEPTH TO COMPENSATE FOR ANY SHRINKAGE AND THE TOPSOIL SHALL BE MEASURED PERPENDICULAR TO THE PLANE OF THE FINISHED GRADE. IRREGULARITIES IN THE SURFACE RESULTING FROM OPERATIONS THEREOF SHALL BE CORRECTED TO PREVENT THE FORMATION OF DEPRESSIONS WHERE WATER WILL STAND. TOPSOIL SHALL NOT BE PLACED OR WORKED WHEN IT IS FROZEN, EXCESSIVELY DRY OR WET OR IN A CONDITION OTHERWISE DETRIMENTAL TO THE PROPOSED SEEDING.
2. APPLY COMMERCIAL FERTILIZER, LIME AND ANY OTHER SOIL ADDITIVES ACCORDING TO THE REQUIREMENTS AND RATES RECOMMENDED BY SOIL TEST RESULTS.

**SEED MIXTURE #1 (SHADED AREAS):**

- 30% DALLAS TALL FESCUE
- 30% FALCON IV TALL FESCUE
- 30% SUNGAZER TALL FESCUE
- 10% SPF 30 TEXAS HYBRID KY BLUEGRASS

SEED AT THE RATE OF 3-4 LBS./1,000 SQ.FT. SEED AVAILABLE AT THE CHAS. C. HART SEED CO. WETHERSFIELD, CT.

**SEED MIXTURE #2 (ALL OTHER AREAS):**

- 35% EPIC CREEPING RED FESCUE
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- 15% INDIANGRASS
- 10% PARTRIDGE PEA
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EROSION AND SEDIMENT CONTROL PLAN CERTIFIED BY VOTE OF THE SALEM PLANNING AND ZONING COMMISSION ON:

DATE \_\_\_\_\_ CHAIRMAN OR SECRETARY \_\_\_\_\_

No.	Date	Description
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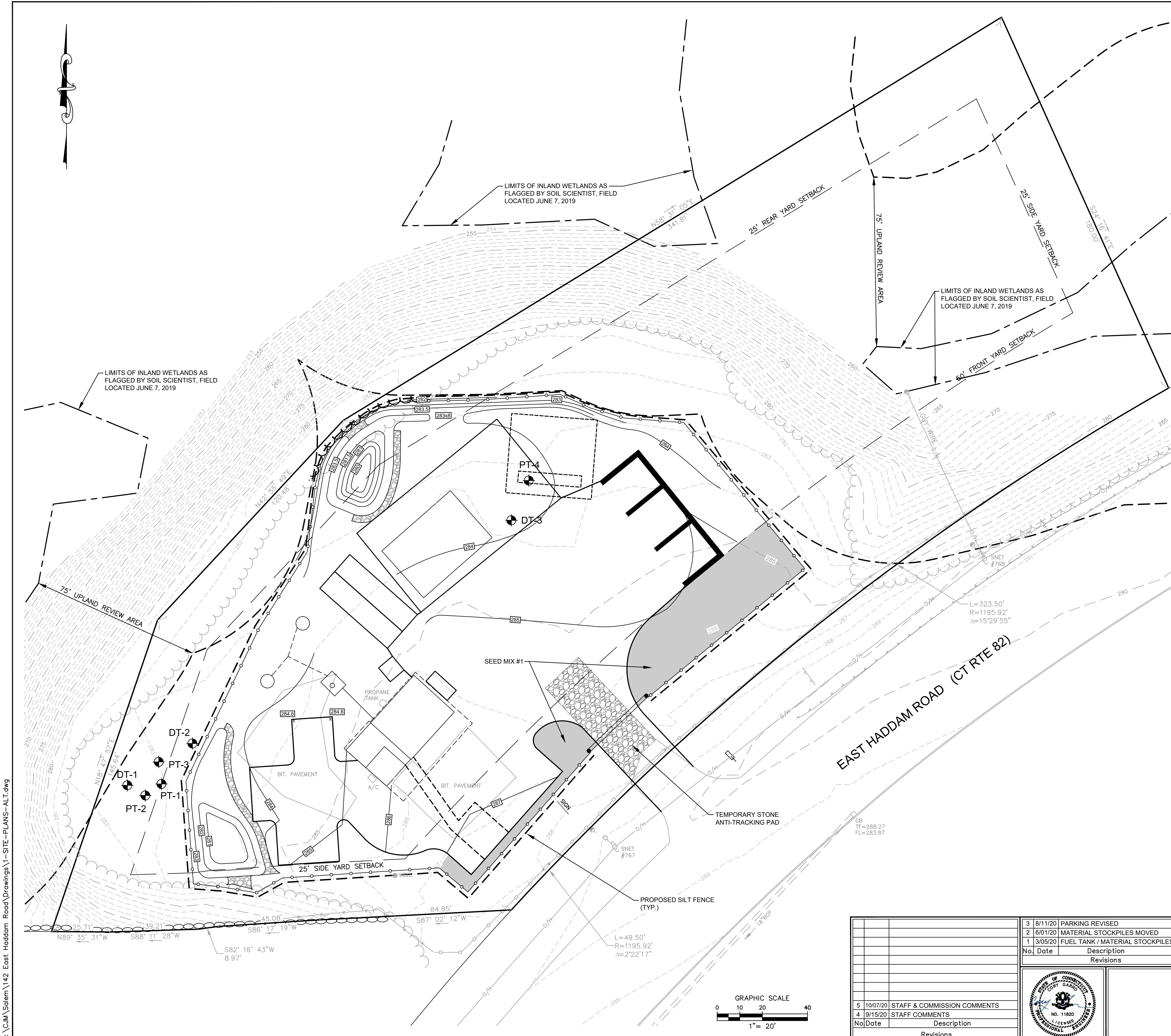


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 1137 Silas Deane Highway, Wethersfield, Conn. 06109, Tel. (860)563-9375

**EROSION & SEDIMENTATION CONTROL PLAN**

PROPERTY OF ARBORIO BROTHERS, LLC  
**PROPOSED MOTOR TRUCK TERMINAL**  
 FOR ARBORIO BROTHERS, LLC  
 142 EAST HADDAM ROAD  
 SALEM, CONNECTICUT

Compiled	E.T.J.
P.C. Check	
Designed	K.R.J.
Drawn	E.T.J.
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Scale	1"= 20'
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Job No.	
File No.	



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Qty	Label	Arrangement	Lumens	Input Watts	LLF	BUG Rating	Description
2	SL4	SINGLE	18161	160.74	0.850	B3-U0-G3	LUMEC RFM-160W48LED4K-G2-4-VOLT-DMG-RCD7-COLTX / MOUNTED TO TEA-6A-STD / MOUNTED TO 401-4011-16 / OPTICAL HEIGHT AT 19FT AFG

Label	Grid Height	Avg	Max	Min	Avg/Min	Max/Min
CalcPts_1	0	0.03	7.5	0.0	N.A.	N.A.
CENTER LOT		1.95	7.5	0.3	6.50	25.00
EQUIPMENT STORAGE		1.15	3.5	0.1	11.50	35.00



**GENERAL DISCLAIMER:**  
 Calculations have been performed according to IES standards and good practice. Some differences between measured values and calculated results may occur due to tolerances in calculation methods, testing procedures, component performance, measurement techniques and field conditions such as voltage and temperature variations. Input data used to generate the attached calculations such as room dimensions, reflectances, furniture and architectural elements significantly affect the lighting calculations. If the real environment conditions do not match the input data, differences will occur between measured values and calculated values.

\* LLF Determined Using Current Published Lamp Data

**NOTE TO REVIEWER:**  
 Total Light Loss Factor (LLF) applied at time of design is determined by applying the Lamp Lumen Depreciation (LLD) from current lamp manufacturer's catalog, a Luminaire Dirt Depreciation Factor (LDD) based on IES recommended values and a Ballast Factor (BF) from current ballast specification sheets. Application of an incorrect Light Loss Factor (LLF) will result in forecasts of performance that will not accurately depict actual results.

For proper comparison of photometric layouts, it is essential that you insist all designers use correct Light Loss Factors.

APPROVED BY THE SALEM PLANNING AND ZONING COMMISSION ON:

DATE \_\_\_\_\_ CHAIRMAN OR SECRETARY \_\_\_\_\_

**NOTES:**  
 1. LIGHTING FIXTURES SHOWN ARE AVAILABLE FROM APEX LIGHTING SOLUTIONS AND ARE NOT INTERCHANGEABLE WITH OTHER LIGHT PRODUCTS.

No	Date	Description
5	10/07/20	OWNERSHIP UPDATED
4	9/15/20	STAFF COMMENTS
3	8/11/20	PARKING REVISED
2	6/01/20	MATERIAL STOCKPILES MOVED
1	3/05/20	FUEL TANK / MATERIAL STOCKPILES

LIGHTING DESIGN BY:

THE POINT WHERE ALL ASCENDING LINES CONVERGE

*B. J. M.*  
**Close, Jensen & Miller, P. C.**  
 Consulting Engineers, Land Planners & Surveyors  
 1137 Silas Deane Highway, Wethersfield, Conn. 06109, Tel. (860)563-9375

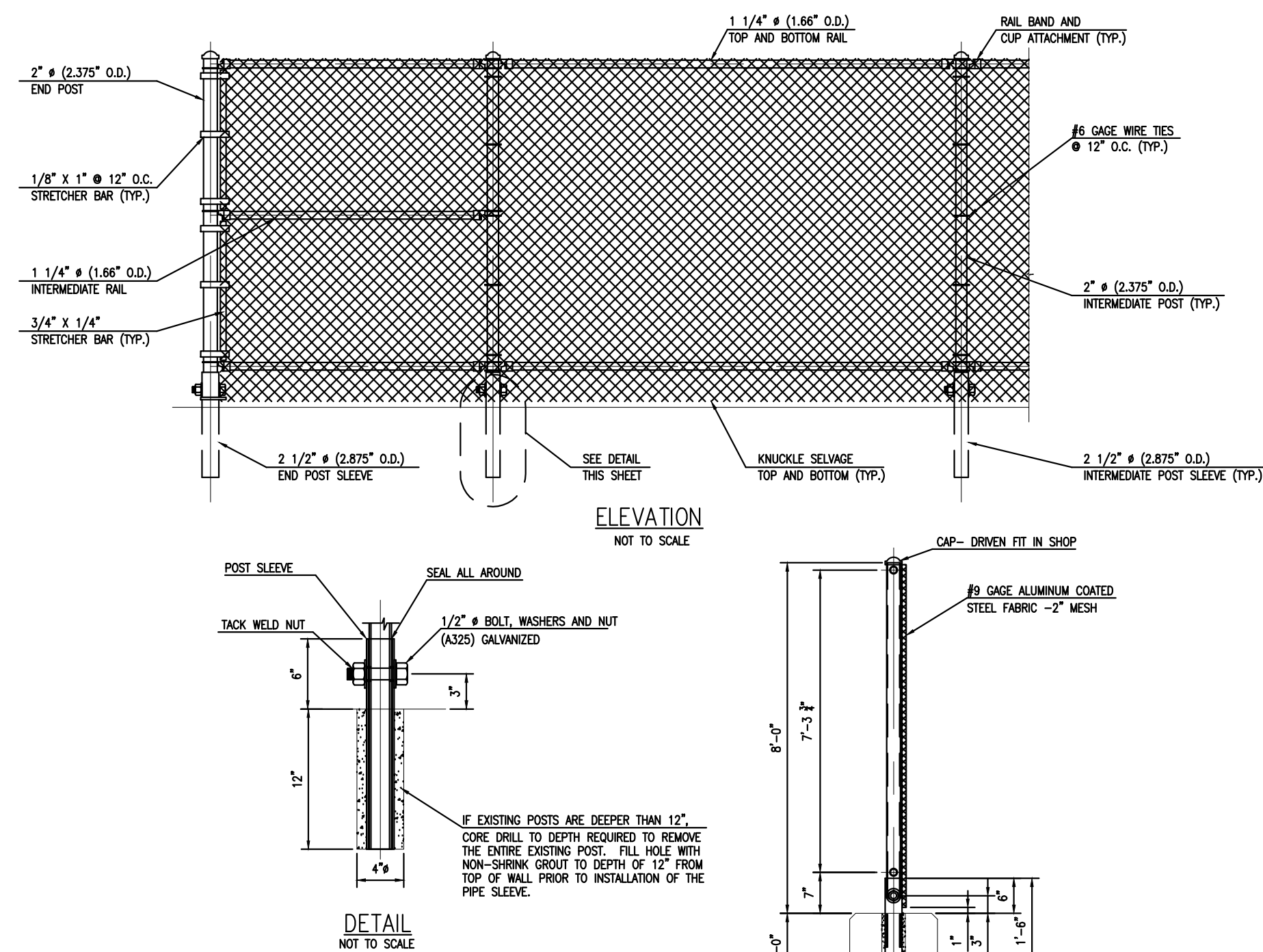
**PHOTOMETRIC PLAN**

PROPERTY OF ARBORIO BROTHERS, LLC  
**PROPOSED MOTOR TRUCK TERMINAL**  
 FOR ARBORIO BROTHERS, LLC  
 142 EAST HADDAM ROAD  
 SALEM, CONNECTICUT

Compiled	Apex
P.C. Check	
Designed	Apex
Drawn	
Checked	Apex
Scale	1" = 20'
Date	12/08/19
Sheet	Of
<b>6</b>	<b>8</b>
Job No.	
File No.	

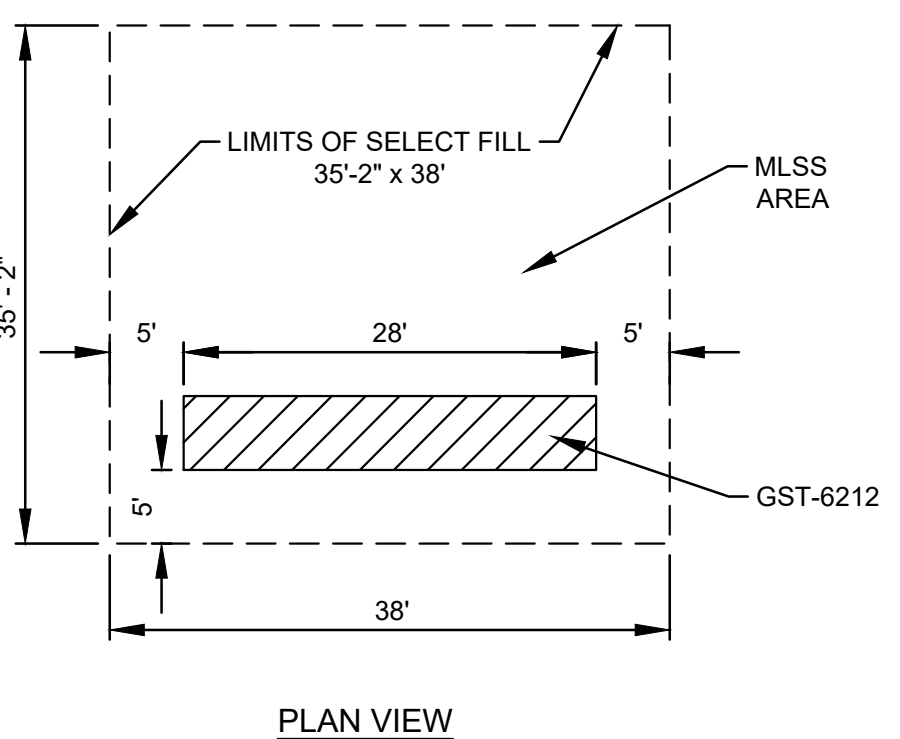
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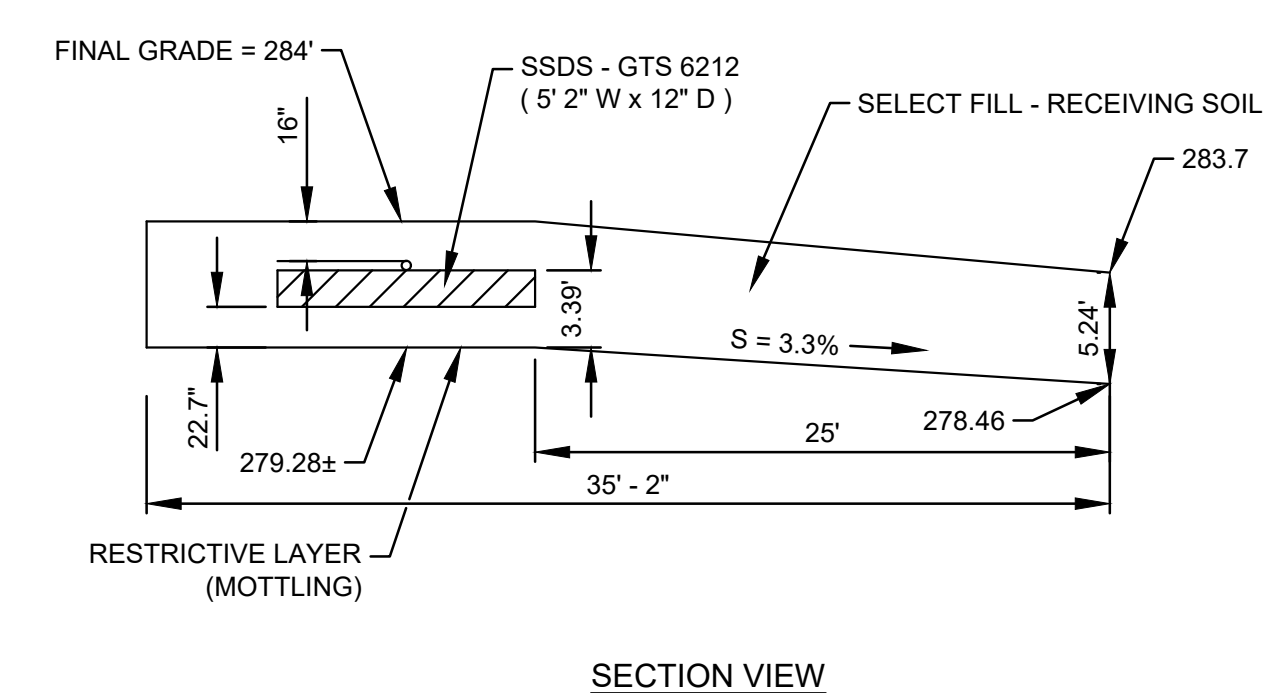


**FENCE NOTES:**  
 1. ALL POSTS, RAILS AND SLEEVES TO BE STANDARD PIPE CONFORMING TO THE REQUIREMENTS OF ASTM A53 (E OR S GRADE B).  
 2. ALL POSTS, RAILS AND FITTINGS, EXCEPT THE STRETCHER BAR SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153. THE STRETCHER BAR SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A123.  
 3. THE 8 FT HIGH CHAIN LINK FENCE SHALL COMPLY WITH COST FORM 818.  
 4. THE FINISHED RAILING MUST MEET ALL REQUIREMENTS OF FIT, ALIGNMENT AND GRADE AND VERTICALITY OF POSTS TO THE FULL SATISFACTION OF THE ENGINEER. IT IS RECOMMENDED THAT COMPLETE FIELD MEASUREMENTS BE MADE BEFORE ANY SHOP FABRICATION IS PERFORMED.  
 5. SEE CONC. D.O.T. STANDARD DRAWING NO. 193-A, "CHAIN LINK FENCE" FOR ADDITIONAL DETAILS FOR CHAIN LINK FENCE.

**CHAIN LINK FENCE**



**RESERVE SUBSURFACE SEWAGE DISPOSAL SYSTEM**



**BASIS OF DESIGN:**

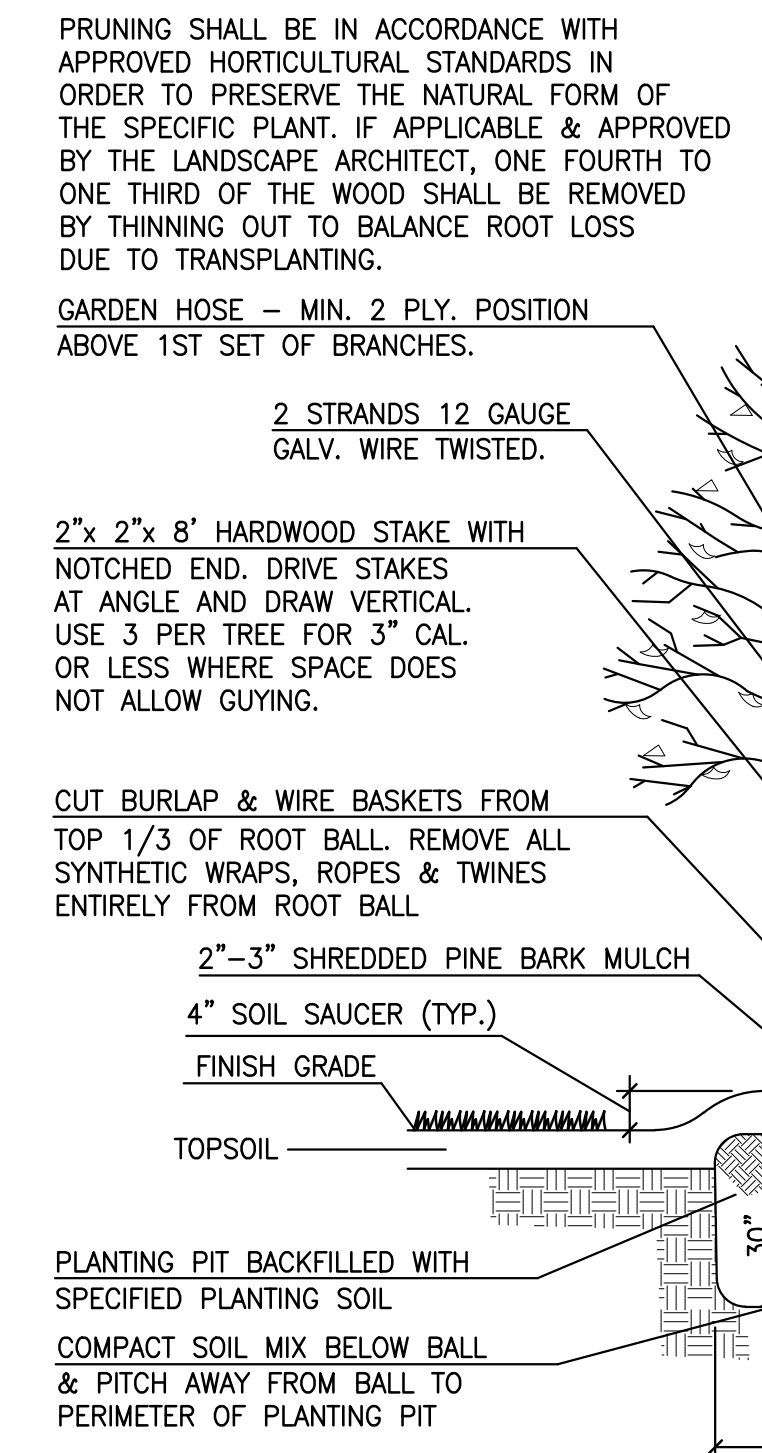
10 EMPLOYEES FOR COMMERCIAL OFFICE BUILDING AT 20 GALLONS / DAY PER EACH EMPLOYEE. DESIGN FLOW FOR THE SITE IS 200 GALLONS PER DAY.

**MLSS CALCULATIONS:**

THE REQUIRED MLSS = HF x FF x PF  
 HF = HYDRAULIC FACTOR; BASED ON HYDRAULIC GRADIENT ( ASSUME EXISTING SLOPE, 3.3% )  
 FF = FACTOR BASED ON DESIGN FLOW ( 200 GPD )  
 PF = FACTOR BASED ON PERCOLATION RATE OF RECEIVING SOIL ( LESS THAN 10 MINUTES PER INCH ) \*  
 \*RECEIVING SOIL WILL BE ENTIRELY MADE UP OF SELECT FILL  
 HF = 42; FF = 200/300 = 0.67; PF = 1 ( RS DEPTH IS 22 )  
 MLSS = 42 x 0.67 x 1 = 28 FT.

**PROPOSED SUB-SURFACE DISTRIBUTION SYSTEM ( SSDS ):**

- 28' OF PROPRIETARY SYSTEM GST-6212 ( 5' 2" WIDE BY 12" DEEP )
- SELECTED FILL AREA OF 38' WIDE ( 28' SYSTEM PLUS 5' ON EACH SIDE ) BY 35' 2" IN LENGTH ( 5' UPGRADE AND 25' DOWNGRADE OF SYSTEM )

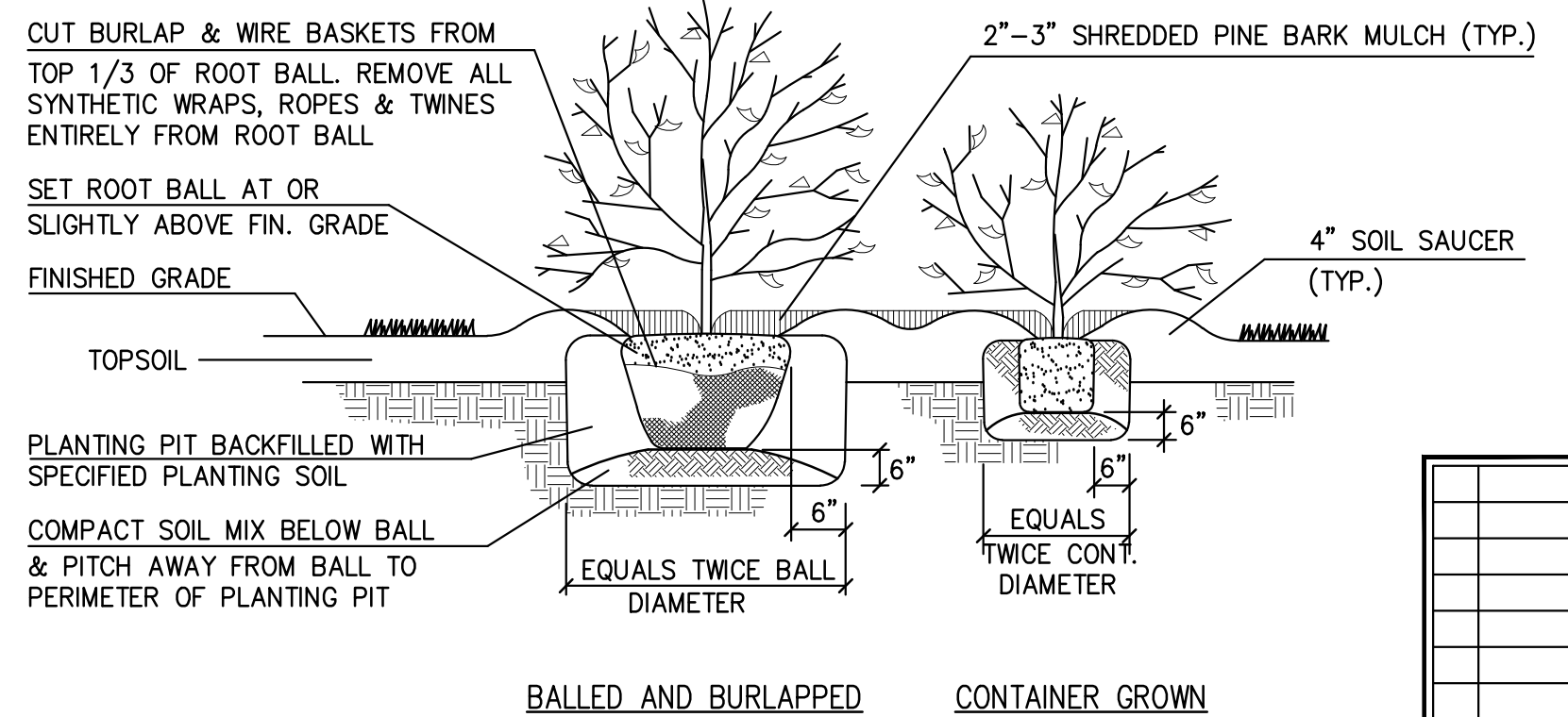


**NOTE:**  
 WHERE PLANT PITS ARE DUG WITH AN AUGERING DEVICE, GLAZED SIDES OR HARDENED SURFACES SHALL BE SCARIFIED PRIOR TO PLANTING.

**TREE PLANTING DETAIL**

**NOTE:**  
 DECIDUOUS TREES 3" CALIPER OR LESS & EVERGREEN TREES 8' OR LESS TO BE STAKED.

**NOTE:**  
 WHERE PLANT PITS ARE DUG WITH AN AUGERING DEVICE, GLAZED SIDES OR HARDENED SURFACES SHALL BE SCARIFIED PRIOR TO PLANTING.



**SHRUB PLANTING DETAIL**

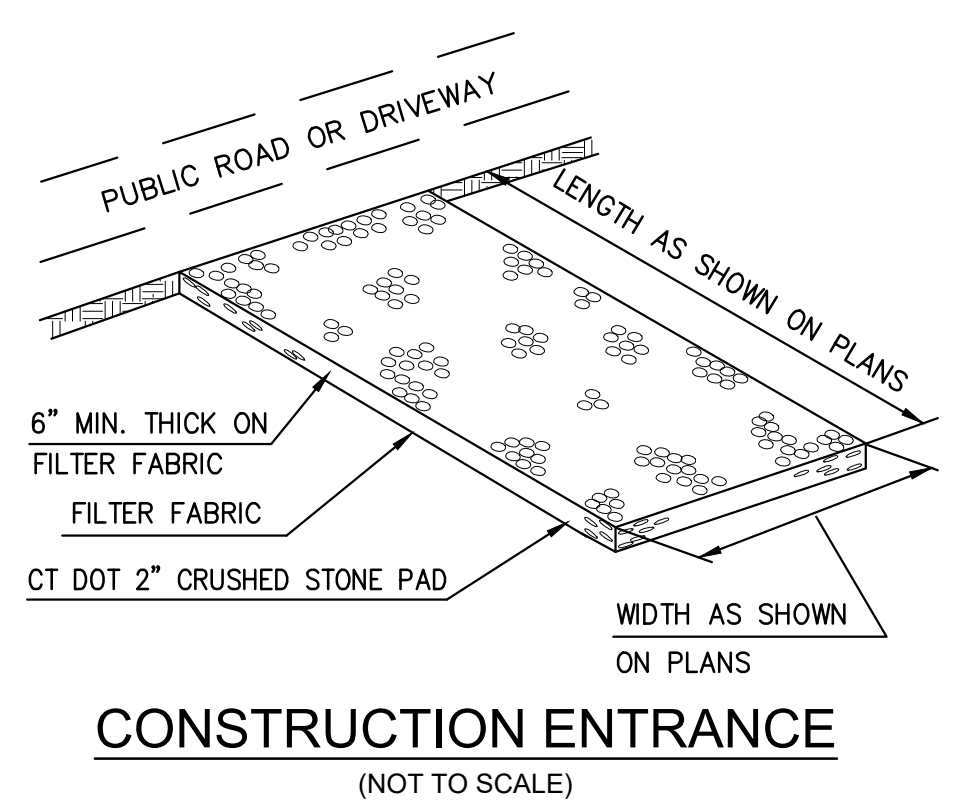
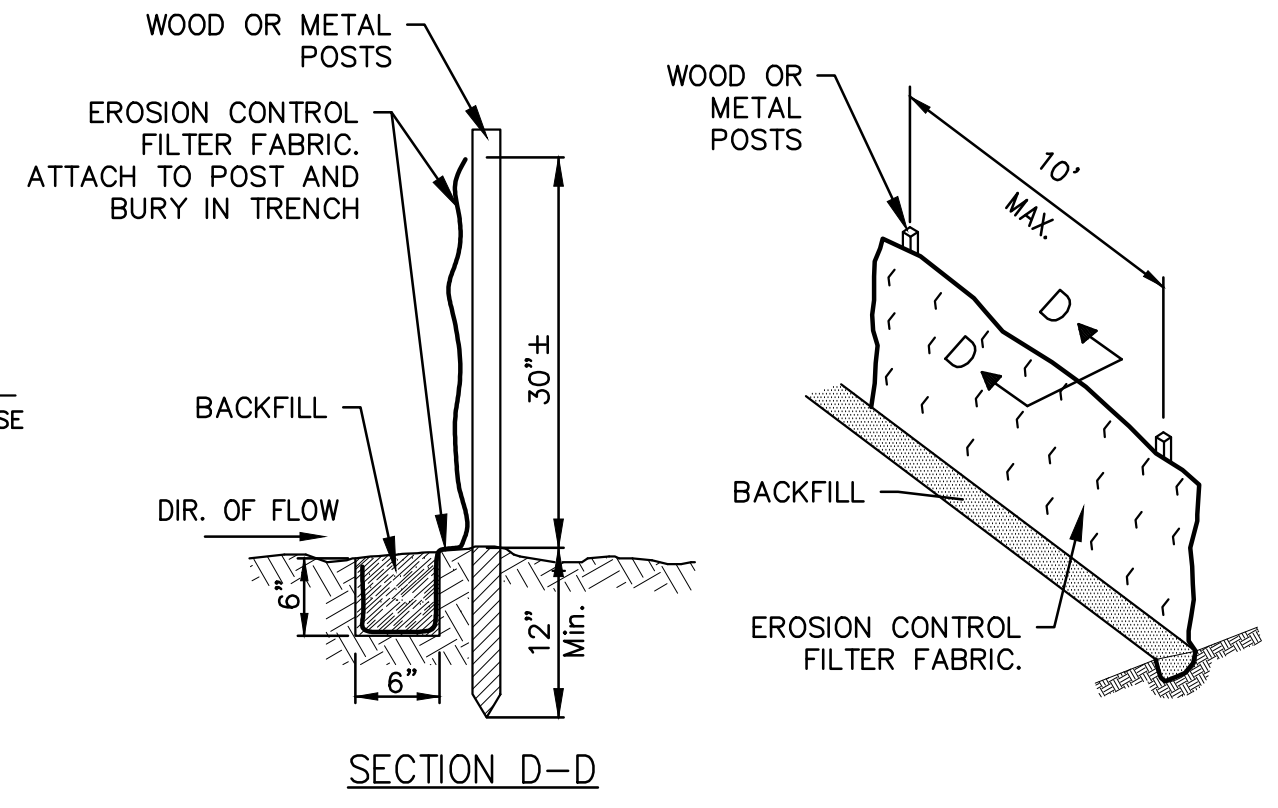
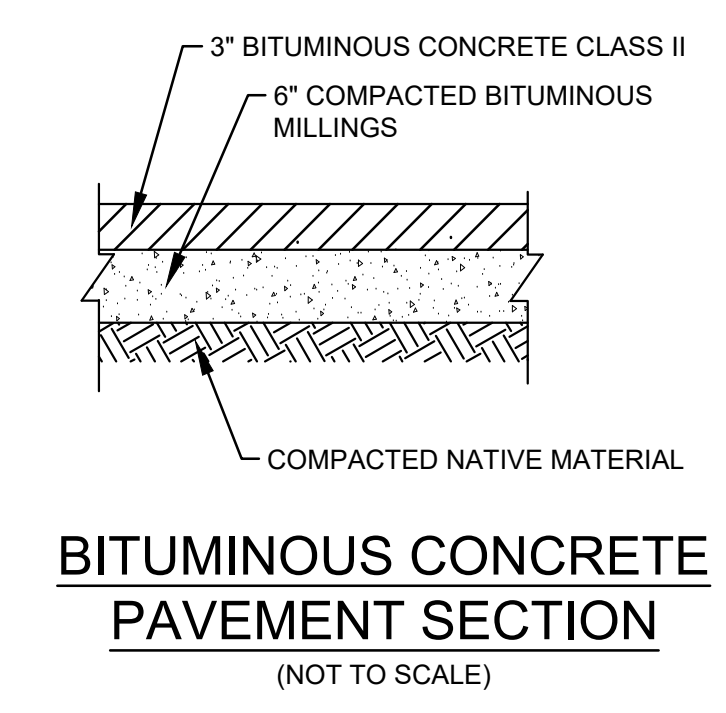
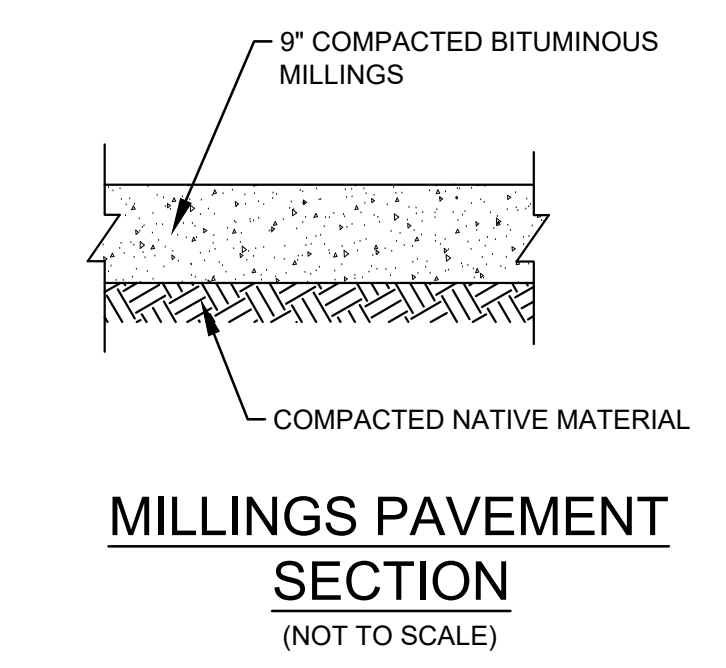
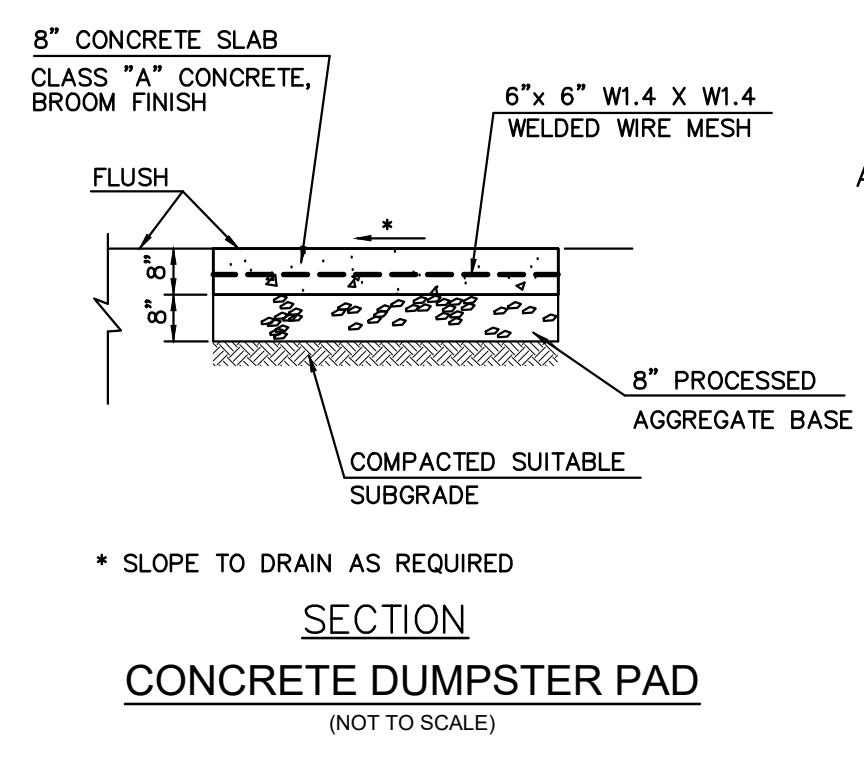
APPROVED BY THE SALEM PLANNING AND ZONING COMMISSION ON:

DATE \_\_\_\_\_ CHAIRMAN OR SECRETARY \_\_\_\_\_

No. Date Description Revisions			<b>Close, Jensen &amp; Miller, P. C.</b> Consulting Engineers, Land Planners & Surveyors 1137 Silas Deane Highway, Wethersfield, Conn. 06109, Tel. (860)563-9375	Compiled E.T.J.
No. Date Description Revisions				P.C. Check K.R.J.
No. Date Description Revisions				Designed K.R.J.
No. Date Description Revisions		<b>CONSTRUCTION DETAILS</b> PROPERTY OF ARBORIO BROTHERS, LLC <b>PROPOSED MOTOR TRUCK TERMINAL</b> FOR ARBORIO BROTHERS, LLC 142 EAST HADDAM ROAD SALEM, CONNECTICUT		Checked C.G.
No. Date Description Revisions				Scale Date 12/08/19
No. Date Description Revisions				Sheet 7 Of 8
No. Date Description Revisions				Job No. File No.

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**ARBORIO (Reference=L65996-1)**

**Description of Components:**

**Housing:** Made of a low copper die cast Aluminum alloy (A360), 0.100" (2.5mm) minimum thickness. Fits on a 1.66" (42mm) O.D. (1.25" NPS), 1.9" (48mm) O.D. (1.5" NPS) or 2 3/8" (60mm) O.D. (2" NPS) by 5 1/2" (140mm) minimum long tenon. Comes with a zinc plated clamp fixed by 2 zinc plated hexagonal bolts 3/8 16 UNC for ease of installation. Provides an easy step adjustment of +/- 5° tilt in 2.5° increments. Includes integral bubble level standard (always included). A quick release, tool less entry, single latch, hinged, removable door opens downward to provide access to electronic components and to a terminal block. Door is secured to prevent accidental dropping or disengagement. A clearance of 13" (330mm) at the rear is required in order to remove the door. Complete with a bird guard protecting against birds and similar intruders and an ANSI label as per C136.15-2015 to identify wattage and source (both included in box).

**Light Engine:** Composed of 4 main components: **Heat Sink / LED Module / Optical System / Driver**. Electrical components are RoHS compliant, IP66 sealed light engine. LEDs tested by ISO 17025-2005 accredited lab in accordance with IESNA LM-80 guidelines in compliance with EPA ENERGY STAR, extrapolations in accordance with IESNA TM-21. Metal core board ensures greater heat transfer and longer lifespan.

**Heat Sink:** Built in the housing, designed to ensure high efficacy and superior cooling by natural vertical convection air flow pattern always close to LEDs and driver optimising their efficiency and life. Product does not use any cooling device with moving parts (only passive cooling). Wide openings enable natural cleaning and removal of dirt and debris. Entire luminaire is rated for operation in ambient temperature of -40°C / -40°F up to +40°C / +104°F.

**LED Module:** Composed of 48 high-performance white LEDs. Color temperature as per ANSI/NEMA bin Neutral White, 4000 Kelvin nominal (3985K +/- 275K or 3710K to 4260K), CRI 70 Min. 75 Typical.

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03-12-2019 Page 1 / 4

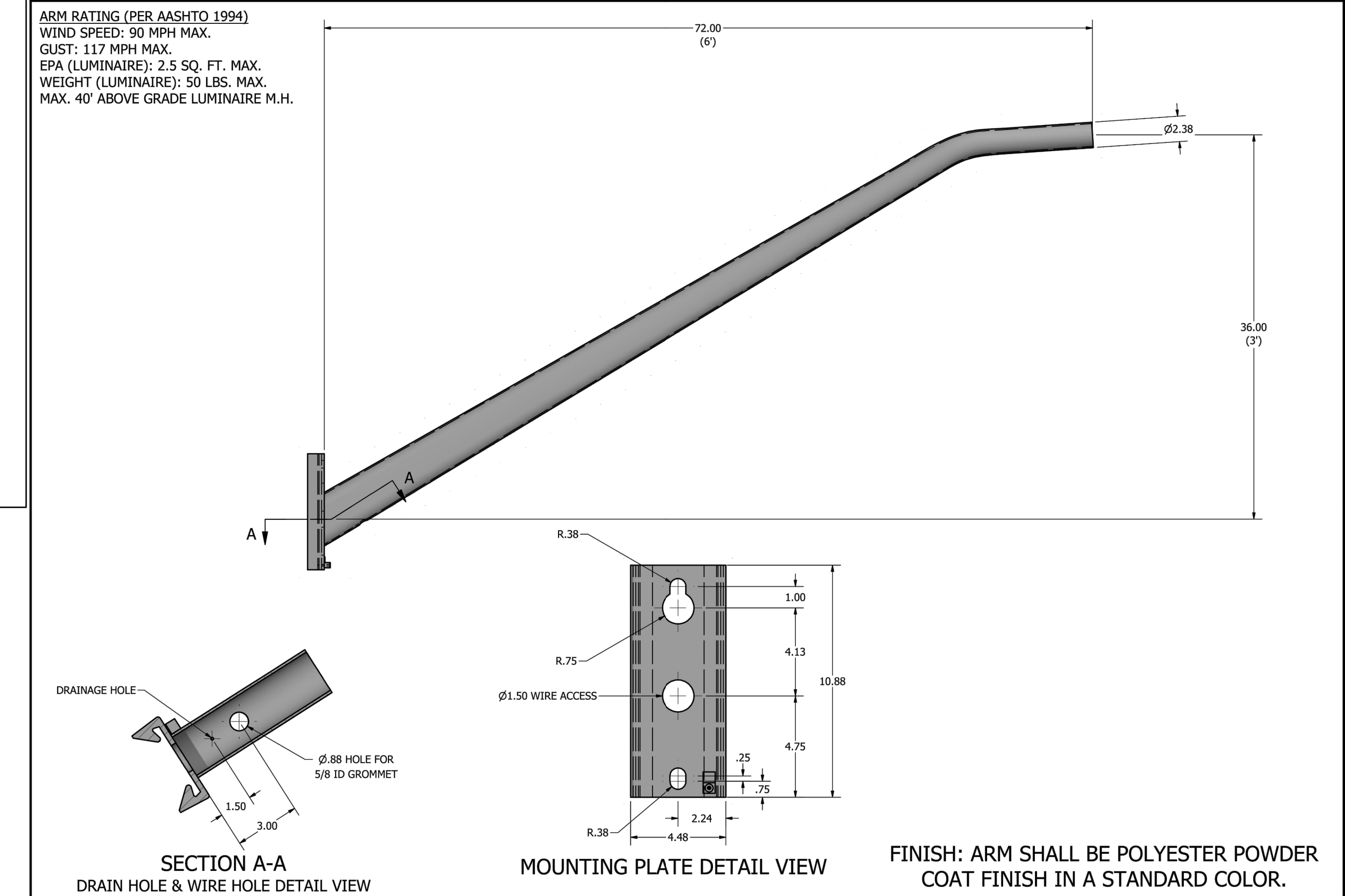
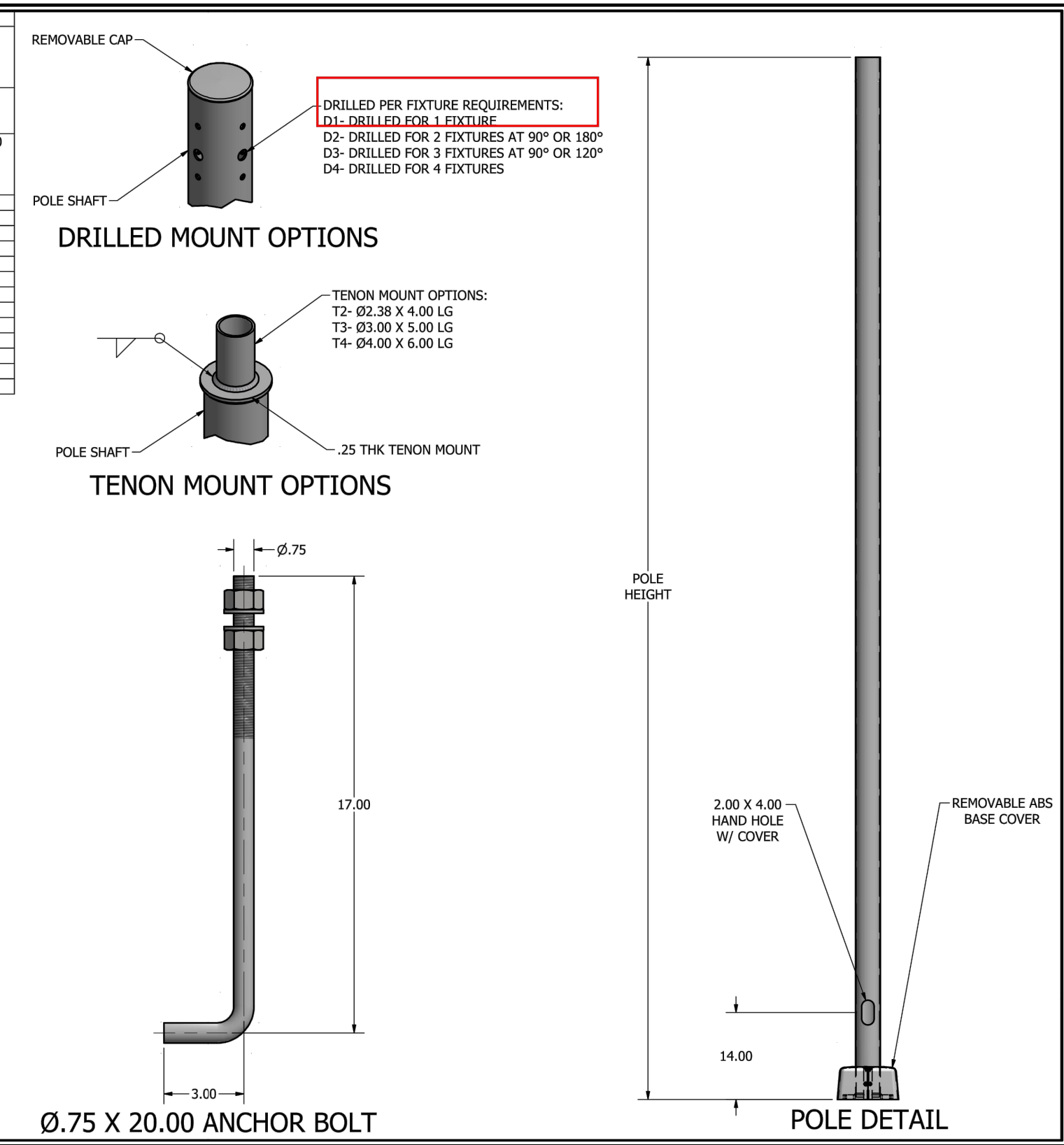
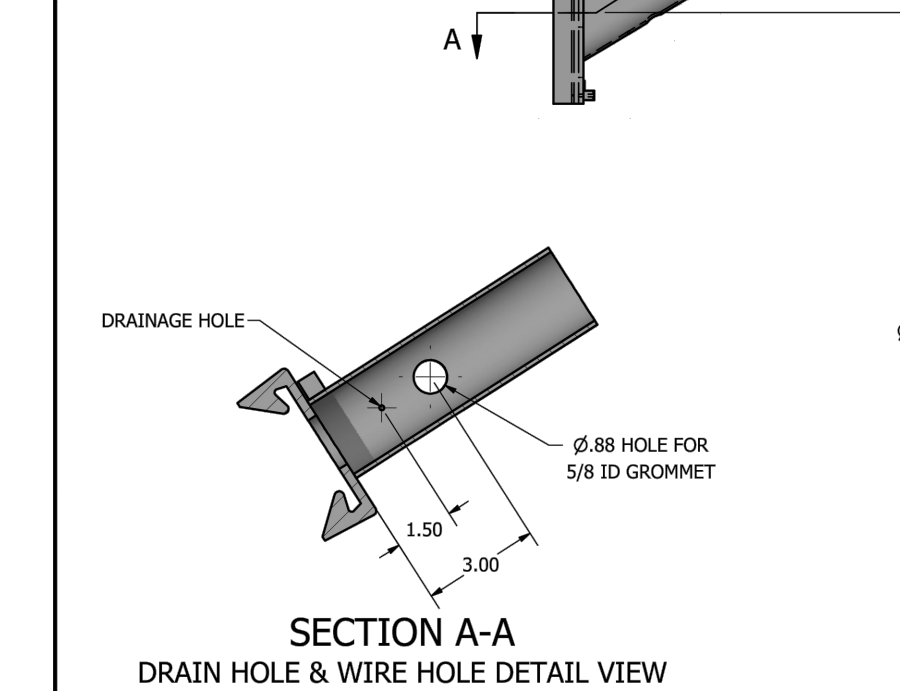
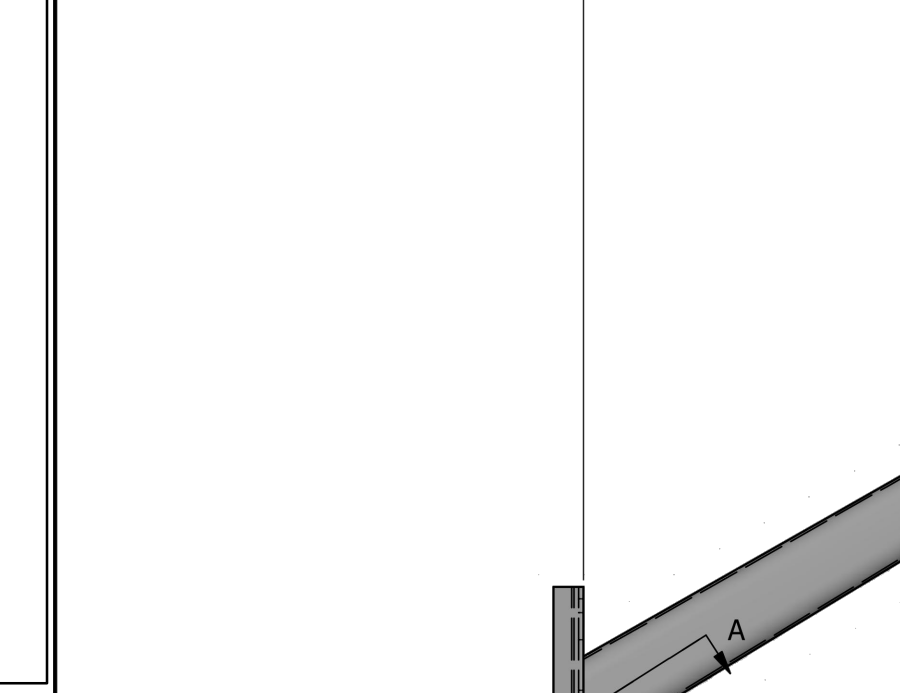
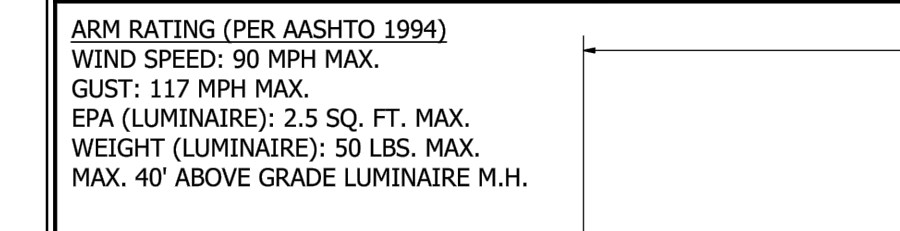
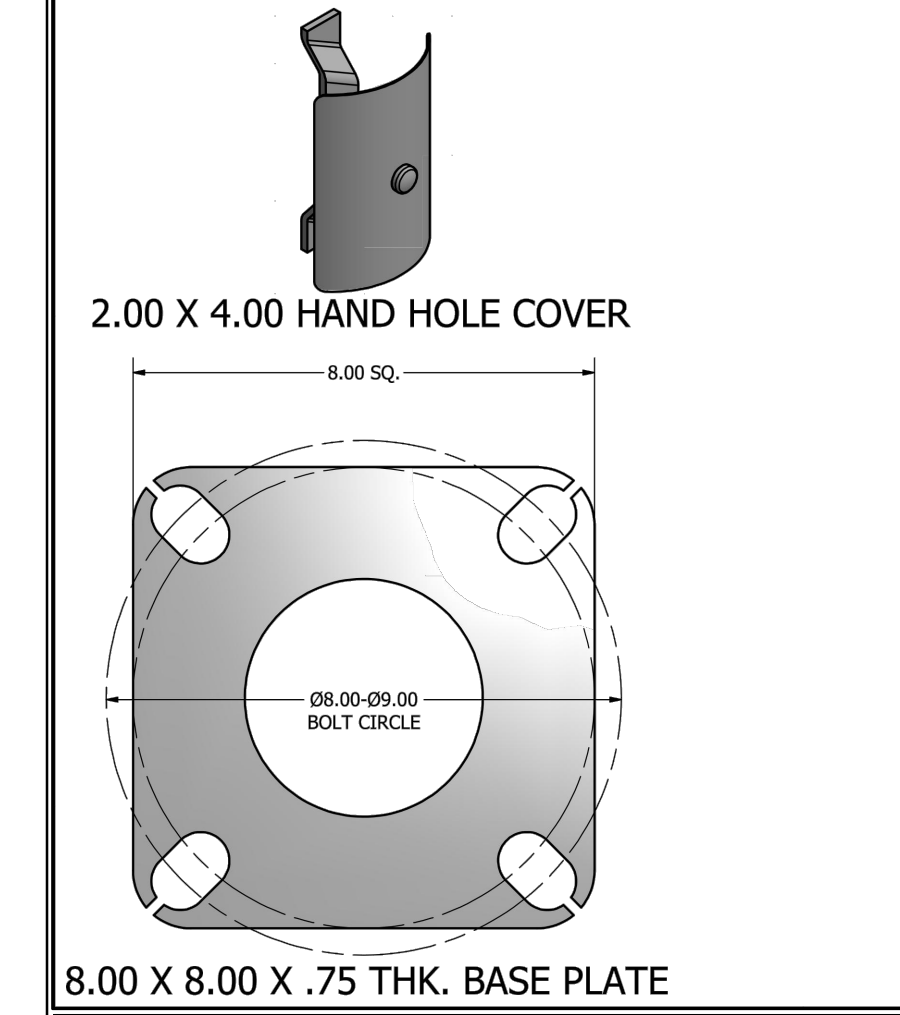
**POLE SHAFT SPECIFICATIONS**

NO. 1. SHAFTS ARE ONE SECTION DESIGN FABRICATED FROM A WELDABLE GRADE CARBON STEEL STRUCTURAL TUBING (ASTM A500 GR. B) WITH A UNIFORM WALL THICKNESS. MATERIAL SHALL CONFORM TO ASTM A-500 GRADE B WITH A MINIMUM YIELD STRENGTH OF 46,000 P.S.I.

2. BASE PLATES ARE CONSTRUCTED OF A STRUCTURAL QUALITY HOT ROLLED CARBON STEEL PLATE (ASTM A36) WITH A GUARANTEED MINIMUM YIELD STRENGTH OF 36,000 P.S.I., FABRICATED FROM ASTM F1554 GR. 55, THE BOLTS ARE FULLY GALVANIZED PER ASTM A153 SPECIFICATIONS. FURNISHED COMPLETE WITH 2 HEX NUTS AND 2 FLAT WASHERS.

3. POLES SHALL HAVE A POLYESTER POWDER COAT FINISH IN A STANDARD COLOR.

POLE DIMENSIONS			
POLE HT. (FT.)	TOP DIA. (IN.)	BOTTOM DIA. (IN.)	MTG. HGT. (FT.)
16'	4.00	4.00	11 GAGE
BASE PLATE DIMENSIONS			
BOLT CIRCLE (IN.)	BASE PLATE DIM. (IN.)	BOLT HOLE (IN.)	PLATE THK. (IN.)
14"-9.00	8.00 SQ.	1.00	.14"
ANCHOR BOLT DIMENSIONS		ANCHOR BOLT LENGTH (IN.)	
ANCHOR BOLT DIA. (IN.)		20.00	
ALLOWABLE WIND LOADING (SQ. FT.)			
WIND*	80 MPH	90 MPH	100 MPH
EPA	9.0	6.8	5.3
*WITH 1.3 GUST FACTOR			



FINISH: ARM SHALL BE POLYESTER POWDER COAT FINISH IN A STANDARD COLOR.

APPROVED BY THE SALEM PLANNING AND ZONING COMMISSION ON:

DATE CHAIRMAN OR SECRETARY

No.	Date	Description
2	9/15/20	STAFF COMMENTS
1	3/05/20	INFILTRATION TRENCH DETAIL ADDED
Revisions		

**CONSTRUCTION DETAILS**

PROPERTY OF ARBORIO BROTHERS, LLC  
**PROPOSED MOTOR TRUCK TERMINAL**  
FOR ARBORIO BROTHERS, LLC  
142 EAST HADDAM ROAD  
SALEM, CONNECTICUT

Compiled E.T.J.  
P.C. Check K.R.J.  
Designed K.R.J.  
Drawn E.T.J.  
Checked C.G.  
Scale 12/06/19  
Sheet 8 Of 8  
Job No.  
File No.