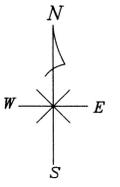
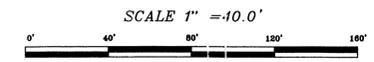


REVISIONS	BY



TREE LEGEND

- OAK
- PINE
- CEDAR
- BAY
- MYRTLE
- ⊙ CAMPHOR
- UNKNOWN
- SWEET GUM

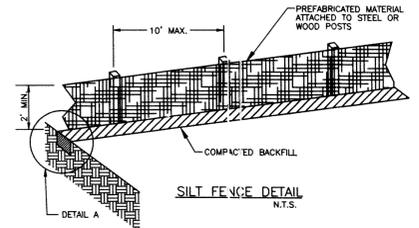
LEGEND

- 100 YEAR FLOOD PLANE
- - - EXISTING CONTOUR
- DIRECTION OF FLOW
- · - · - SILT FENCE
- · - · - PREDEVELOPMENT BASIN

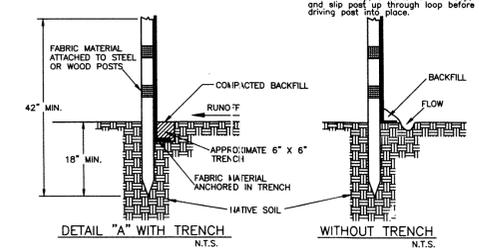
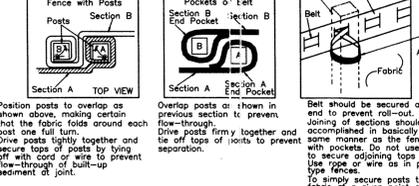
NOTE: TREES 10" IN DIAMETER OR LARGER LOCATED PALM TREES NOT LOCATED.

(#) - INDICATES ELEVATION REFERENCED TO N.E.V.D. 1921

⊕ SOIL BORING LOCATION



JOINING SECTIONS OF SILT FENCES



EROSION & POLLUTION CONTROL NOTES

- PRIOR TO CLEARING AND GRUBBING, HAY BALES SHALL BE STAKED TO THE GROUND ALONG LOW PORTIONS OF THE PROPERTY LINES TO PREVENT STORMWATER FROM WASHING ERODED SOILS FROM THE PROPERTY.
- THE RETENTION BASIN SHALL BE EXCAVATED TO WITHIN 3 INCHES OF FINISH GRADE PRIOR TO PERFORMING ANY CONSTRUCTION ON SITE AND DURING CONSTRUCTION, HAY BALES SHALL BE STAKED IN LOCATIONS WHERE STORM WATER ENTERS THE BASIN TO FILTER THE ERODED SOILS.
- AFTER COMPLETION OF ALL CONSTRUCTION, THE FINAL RETENTION BASIN SHALL BE EXCAVATED, SLOPED AND/OR SEEDED IN ACCORDANCE WITH THE SITE PLAN.
- EROSION CONTROLS SHALL BE MAINTAINED IN PLACE BEFORE, DURING AND AFTER COMPLETION OF SITE WORK UNTIL STABILIZED BY 500 OR 1400 LBS PER SQ. YD.

CONSTRUCTION PLANS AND SPECIFICATIONS AND DRAINAGE SITE PLAN FOR GRADING, PAVING AND DRAINAGE SITE PLAN FOR R. J. KIELY PLUMBING, HEATING & COOLING MASSACHUSETTS AVE. AND OSTEN ROAD. NEW PORT RICHEY, FLORIDA SECTION 34, TWP. 25S. RGE. 16E.

JAMES TIPPENS

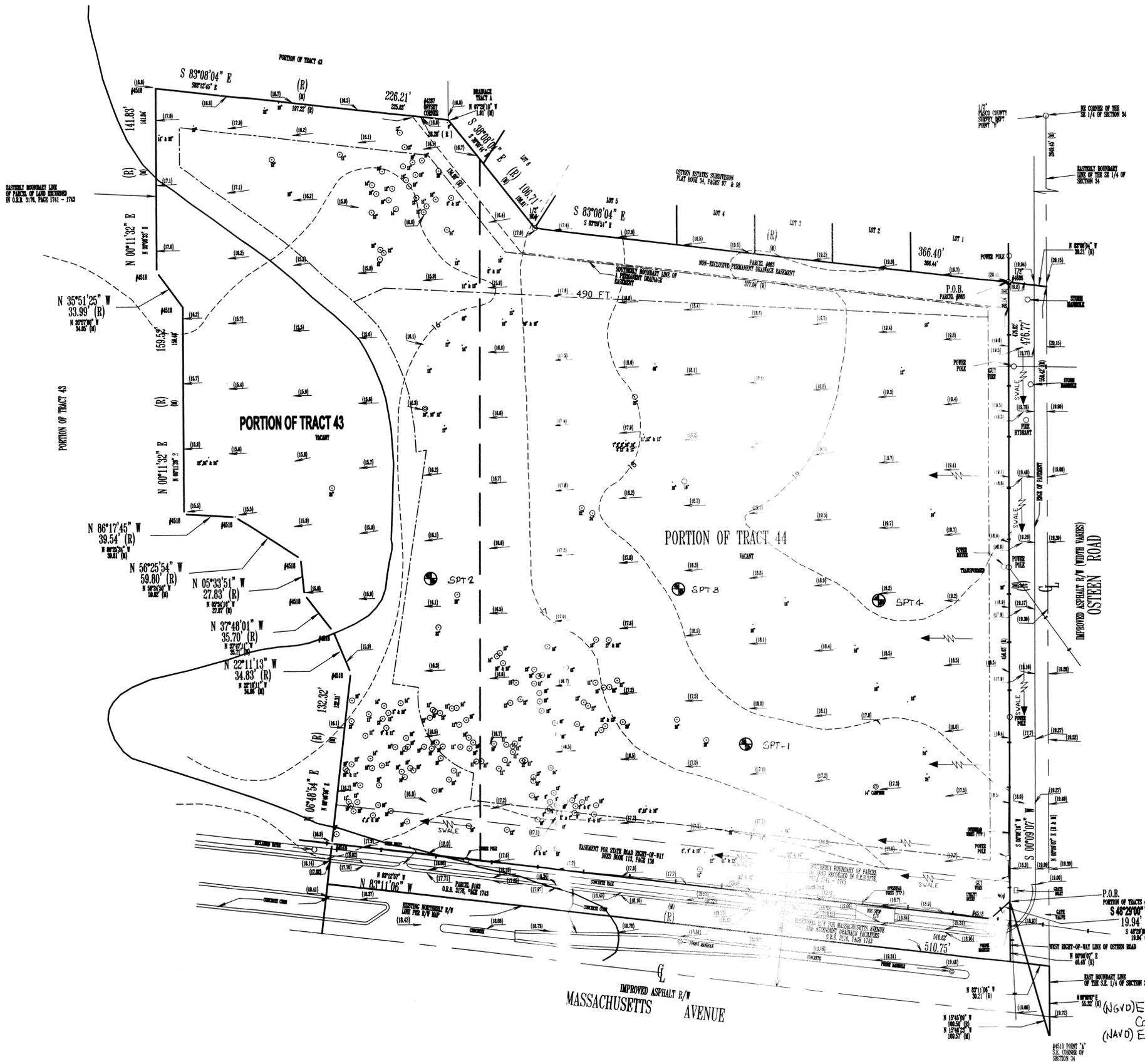
PE # 12217 CA 5499

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 NEW PORT RICHEY, FL 34652
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 FAX (727) 847-9391

DRAWN	RH
CHECKED	JT
DATE	APRIL 2015
SCALE	AS SHOWN
JOB NO.	14-4160
SHEET	SP2
OF 12 SHEETS	

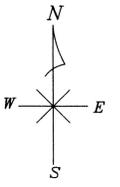
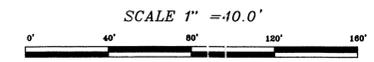
PRE DEVELOPMENT



MASSACHUSETTS AVENUE

P.O.B. PORTION OF TRACTS 43 & 44
 S 48°29'00" W 19.94' (R)
 S 82°00'00" E 44.48' (R)
 (NAV0) ELEVATION () 1929
 CORRECTION (-0.824)
 (NAV0) ELEVATION () 1988

REVISIONS	BY



TREE LEGEND

- OAK
- PINE
- CEDAR
- BAY
- MYRTLE
- ⊙ CAMPHOR
- UNKNOWN
- SWEET GUM

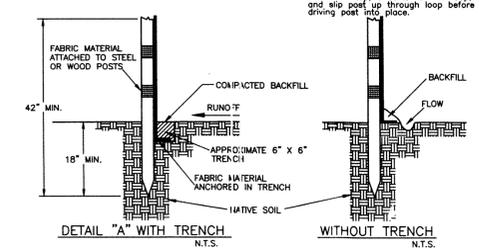
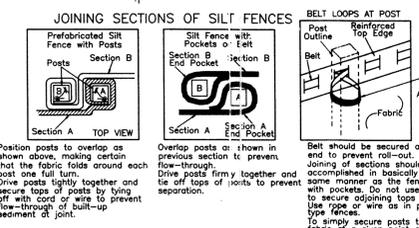
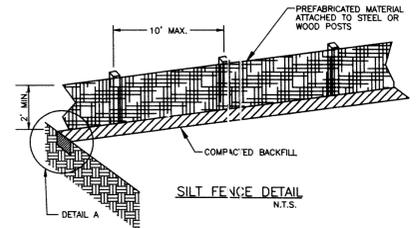
LEGEND

- 100 YEAR FLOOD PLANE
- - - EXISTING CONTOUR
- DIRECTION OF FLOW
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JAMES TIPPENS

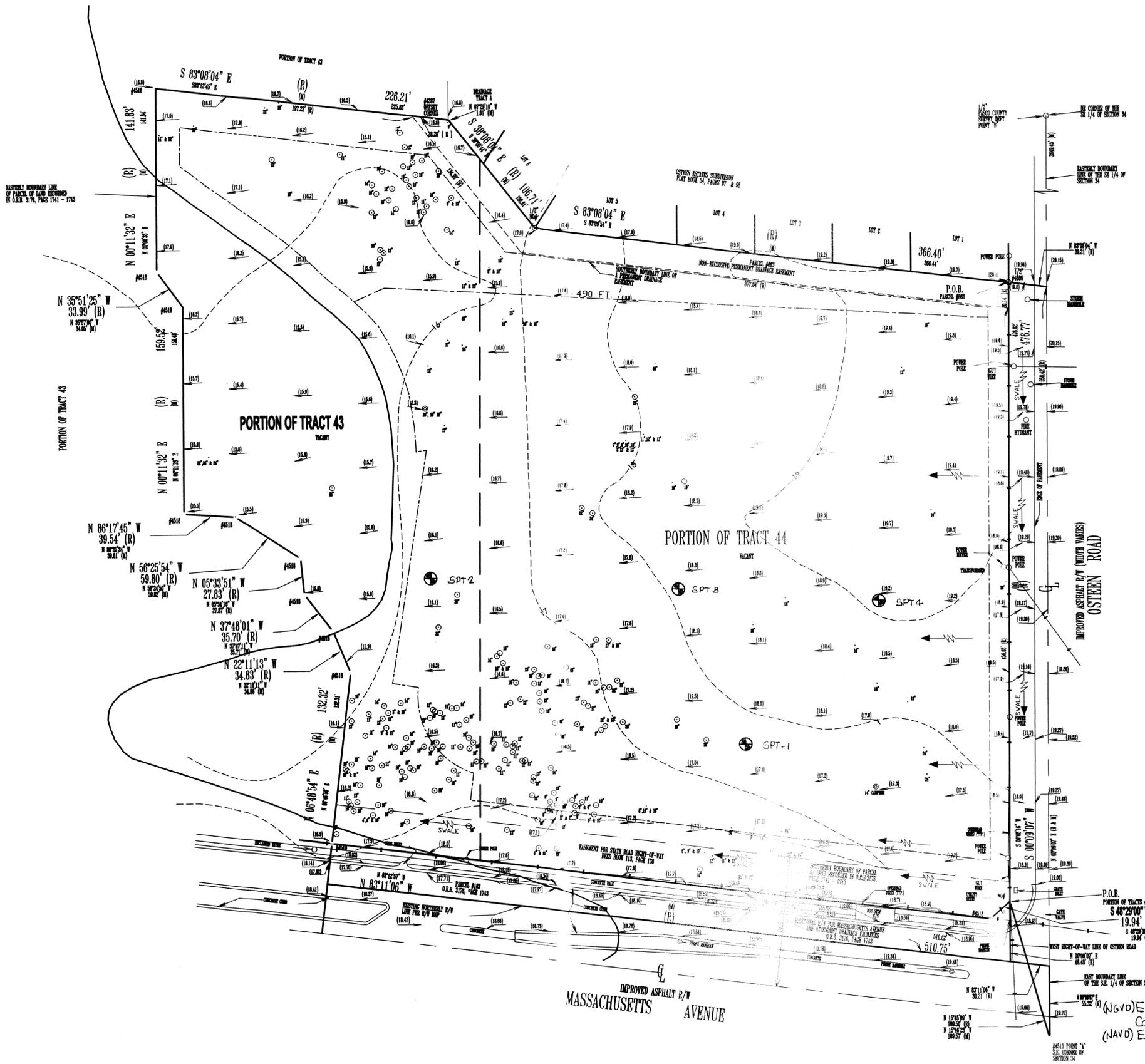
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JOB NO.	14-4160
SHEET	SP2
OF 12 SHEETS	

PRE DEVELOPMENT



MASSACHUSETTS AVENUE

P.O.B. PORTION OF TRACTS 43 & 44
S 48°29'00" W 19.94' (R)
S 82°00'00" W 18.34' (R)
N 82°11'06" W 510.75'
N 82°11'06" W 510.75'
N 82°11'06" W 510.75'

PASTORAL BOUNDARY LINE OF PARCELS OF LAND RECORDED IN O.L.R. 3174, PAGE 1741 - 1743

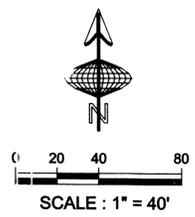
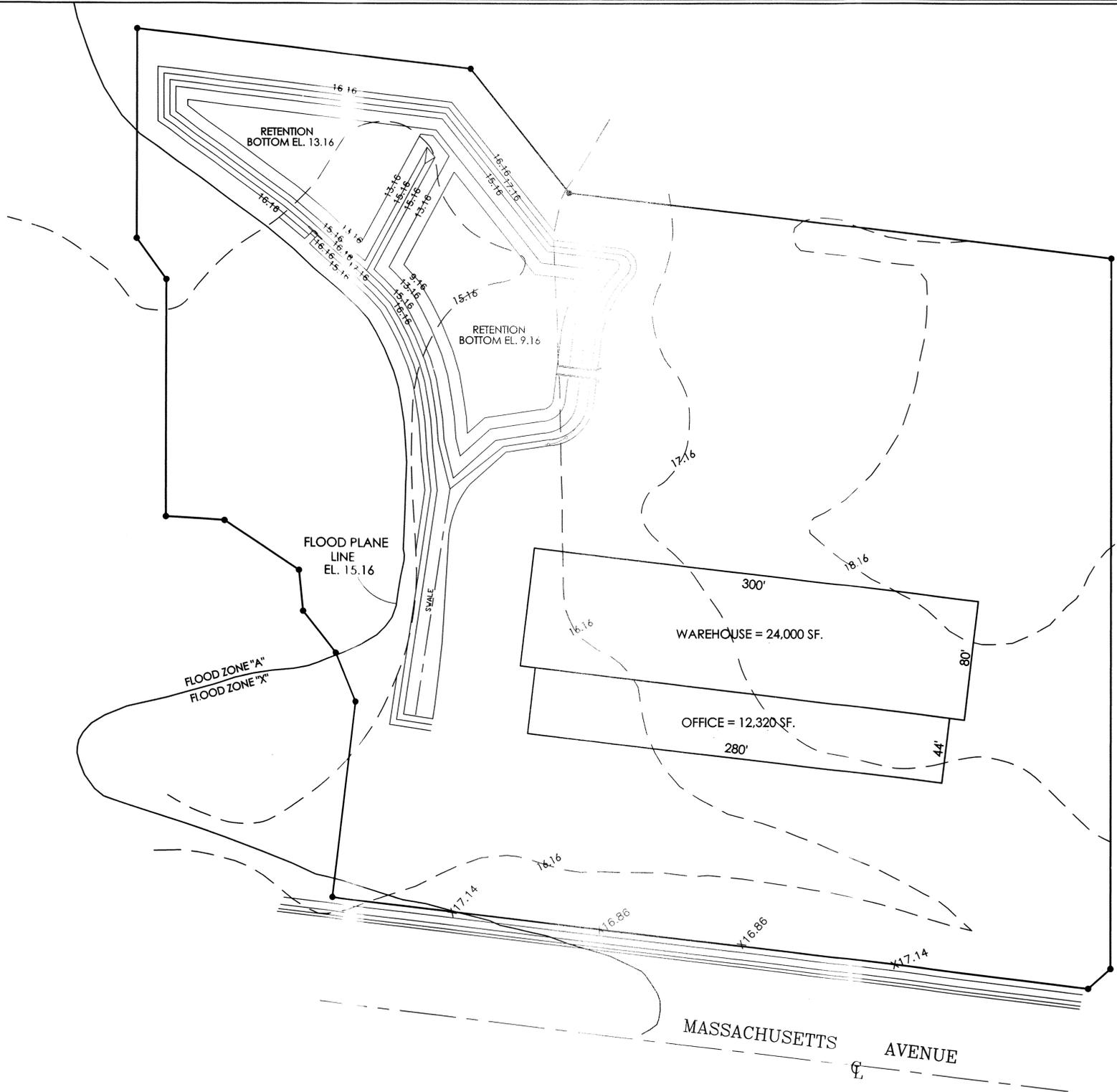
OSTEN ROAD SUBDIVISION PLAT BOOK 34, PAGES 87 & 88

1/2" PASTORAL COUNTY SURVEY, 1987

PASTORAL BOUNDARY LINE OF THE S.E. 1/4 OF SECTION 34

OSTEN ROAD
IMPROVED ASPHALT R/W (WIDTH VARIES)

4510 POINT "A" S.E. CORNER OF SECTION 34



REVISIONS	BY

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BID DOCUMENT PRELIMINARY DOCUMENT
 PERMIT DOCUMENT
 FIELD DOCUMENT

**CONSTRUCTION PLANS AND SPECIFICATIONS
GRADING, PAVING AND DRAINAGE SITE PLAN FOR
R.J. KIELTY PLUMBING, HEATING & COOLING
MASSACHUSETTS AVE. AND OSTEEEN RD.
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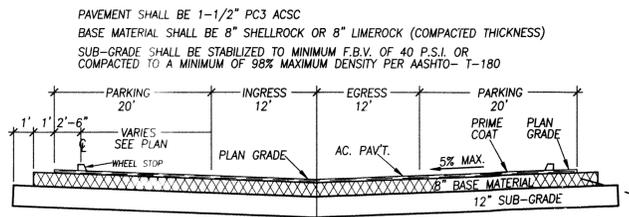
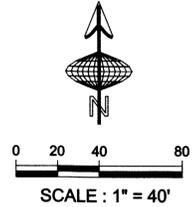
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DRAWN: D.S.P.
 CHECKED: O.J.T.
 DATE: APRIL 2015
 SCALE: AS SHOWN
 JOB NO.: 14-4160
 SHEET: **SP2A**
 OF 12 SHEETS

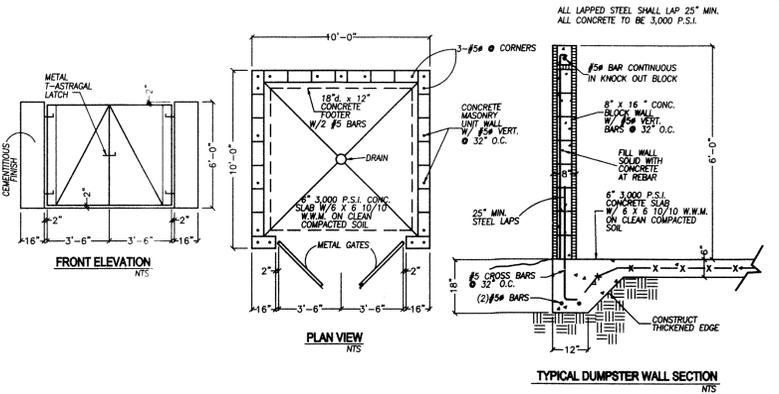
NAVD 1988 CONTOURS

* I HEREBY CERTIFY THAT I HAVE REVIEWED THE ATTACHED DESIGN AND FOUND IT TO BE IN COMPLIANCE WITH THE FBC 2010.

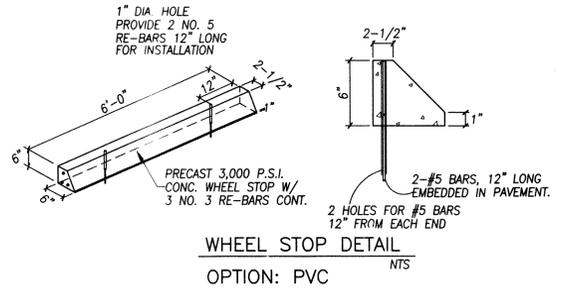
REVISIONS	BY



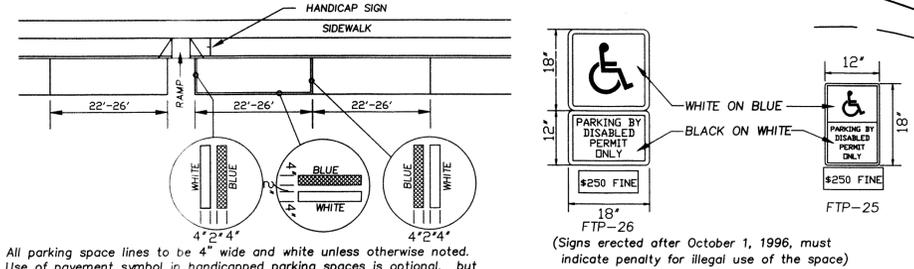
TYPICAL PARKING PAVEMENT SECTION
NTS



TYPICAL DUMPSTER WALL SECTION
NTS

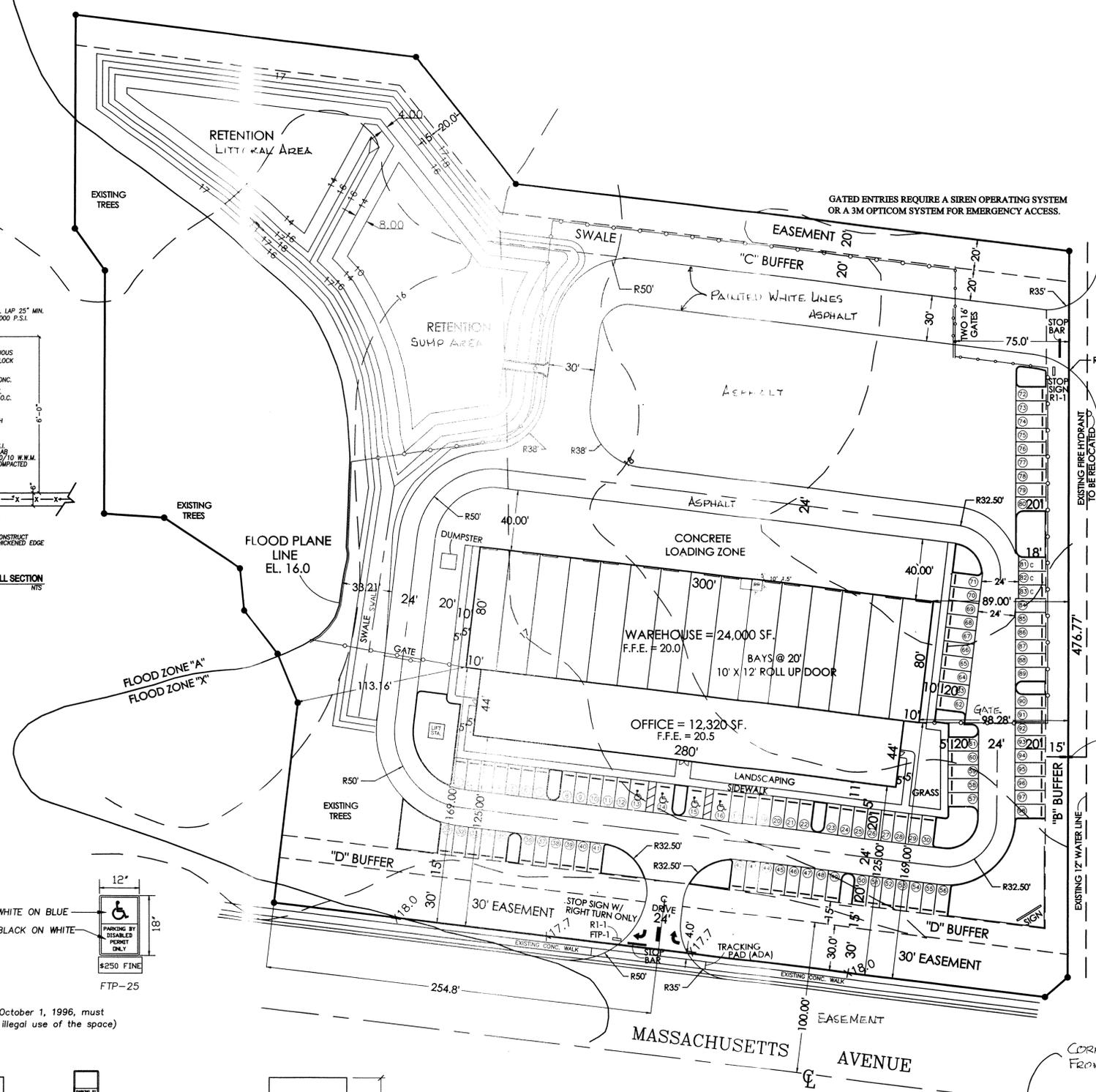
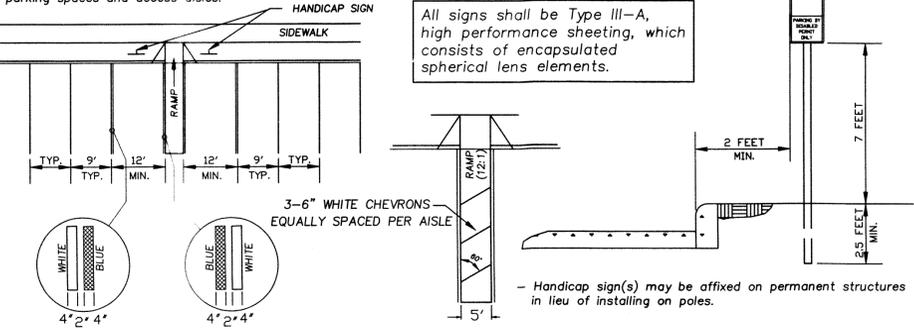


WHEEL STOP DETAIL
OPTION: PVC
NTS



- All parking space lines to be 4" wide and white unless otherwise noted.
- Use of pavement symbol in handicapped parking spaces is optional, but when used shall be 3 ft. to 5 ft. high and white in color.
- The access aisle shall be striped diagonally to designate it as a no parking zone, and shall be white in color. Curb ramps must be located outside of disabled parking spaces and access aisles.

All signs shall be Type III-A, high performance sheeting, which consists of encapsulated spherical lens elements.



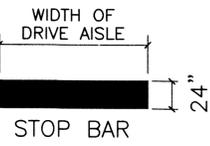
GATED ENTRIES REQUIRE A SIREN OPERATING SYSTEM OR A 3M OPTICOM SYSTEM FOR EMERGENCY ACCESS.



FTP-52-04
24" x 30"



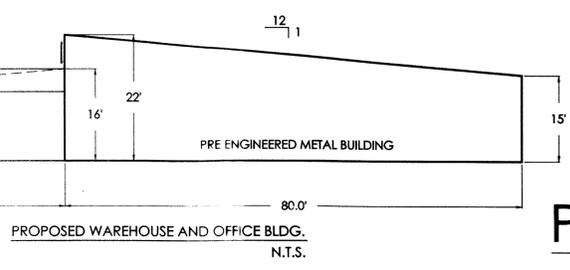
24" x 30"



24"

PARKING :
OFFICE : 12,320 SF. / 300 SF. / SPACE = 41 SPACES
WAREHOUSE : 24,000 SF.
1 SPACE PER 1,000 SF. = 24 SPACES
TOTAL 65 SPACES

PROVIDED 98 SPACES INCLUDING 4 HC SPACES AND 3 COMPACT SPACES



PROPOSED WAREHOUSE AND OFFICE BLDG.
N.T.S.

POST DEVELOPMENT

I HEREBY CERTIFY THAT I HAVE REVIEWED THE ATTACHED DESIGN AND FOUND IT TO BE IN COMPLIANCE WITH THE FBC 2010.

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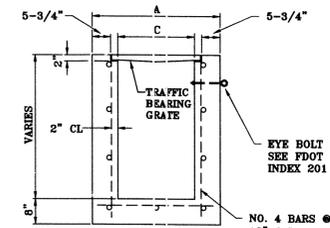
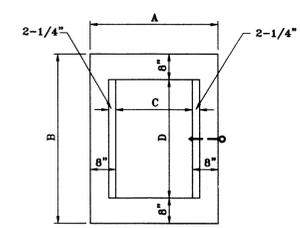
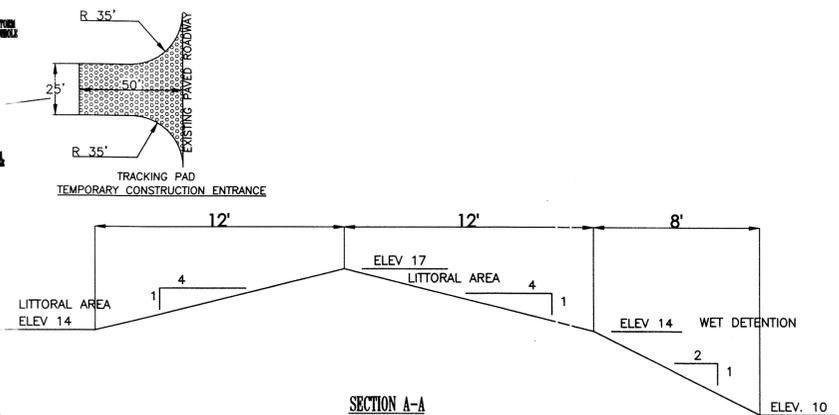
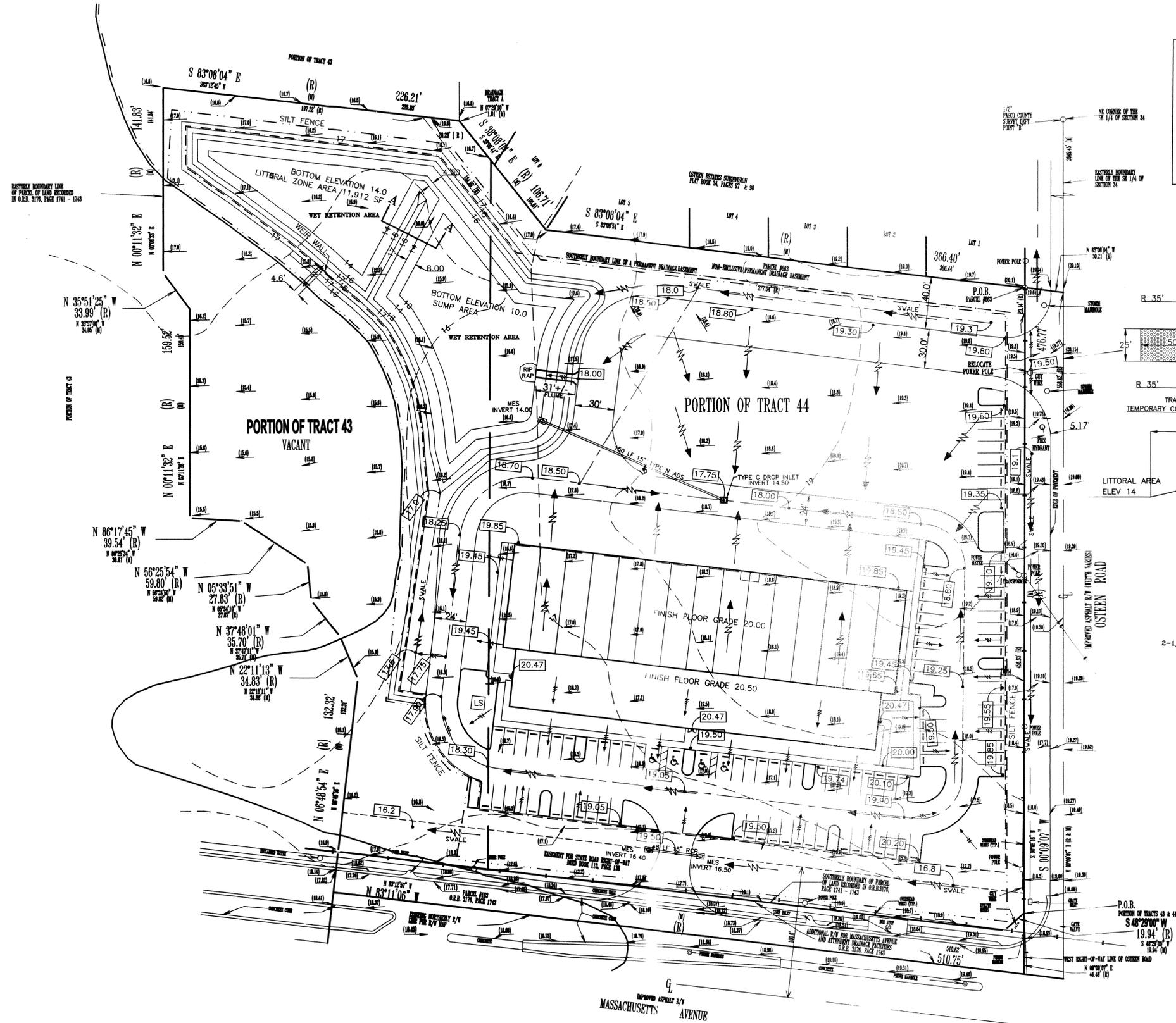
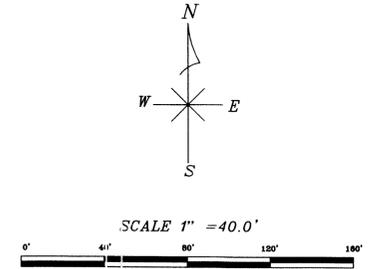
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JOB NO.
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SP4
OF 12 SHEETS

REVISIONS	BY

LEGEND

- 100 YEAR FLOOD PLANE
- EXISTING CONTOUR
- DIRECTION OF FLOW
- SILT FENCE
- PREDEVELOPMENT BASIN

(#) - INDICATES ELEVATION REFERENCED TO N.G.V.D. 1929



DIMENSION TABLE

INLET TYPE	DIMENSIONS			
	A	B	C	D
A	3'-4"	4'-5"	2'-0"	3'-1"
C	3'-4"	4'-5"	2'-0"	3'-1"
D	5'-5"	4'-5"	4'-1"	3'-1"
E	4'-4"	5'-10"	3'-0"	4'-6"
H	9'-0"	4'-4"	3'-0"	7'-8"

NOTE: NON-TRAFFIC BEARING GRATES WILL BE ALLOWED WHEN LOCATED OUTSIDE VEHICULAR TRAFFIC PATTERN.

NOTE: FOR ADDITIONAL DETAILS, REFER TO FDOT INDEX #1232

DROP INLET/JUNCTION DETAIL
SCALE: NTS

POST DEVELOPMENT PAVING, GRADING AND DRAINAGE

NGVD ELEVATION (XX.X) 1929
CORRECTION (0.84)
NAVD ELEVATION (XX.X) 1988

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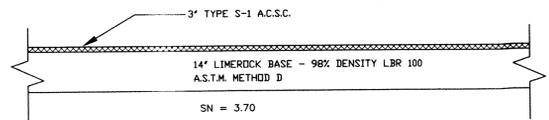
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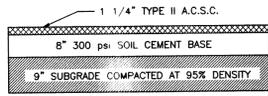


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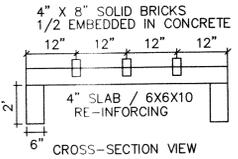


OFFSITE PAVING DETAIL
SCALE: NTS

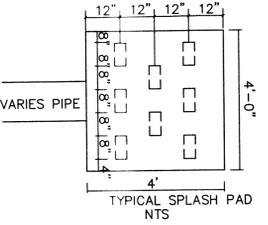


ONSITE PAVING DETAIL
SCALE: NTS

NOTE: ALT. BASE 8" COMPACTED CRUSHED CONCRETE @ 98% DENSITY



CROSS-SECTION VIEW



TYPICAL SPLASH PAD
NTS

SPLASH PAD DETAIL

NOTES
ALL DISTURBED AREAS WITHIN THE RIGHT-OF-WAY SHALL BE RESTORED TO ITS ORIGINAL CONDITION OR BETTER. MAINTENANCE OF TRAFFIC ON THE PROJECT IS TO BE DONE IN ACCORDANCE WITH F.D.O.T. DESIGN STANDARD INDEX #627 OF THE 1996 ROADWAY AND TRAFFIC DESIGN STANDARDS. ALL MITERED END SECTIONS ARE CONSTRUCTED ACCORDING TO FDOT DESIGN STANDARD INDEX #272 OF THE DESIGN STANDARDS LATEST ADDITION

MAINTENANCE AND OPERATION INSTRUCTIONS FOR ON-SITE STORM WATER FACILITIES

- UPON COMPLETION THE OWNER IS RESPONSIBLE FOR KEEPING ALL STORM WATER STRUCTURES IN PROPER WORKING CONDITION.
- ONCE A MONTH OR AFTER SEVERE RAINFALL EVENTS REMOVE ANY DEBRIS WHICH HAS ACCUMULATED IN THE RETENTION POND AND IN FRONT OF THE DRAINAGE OUTLETS. REMOVE SEDIMENT, VEGETATION, TRASH AND DEBRIS TO AN APPROVED DISPOSAL SITE.
- ANNUALLY INSPECT THE RETENTION POND FOR THE FOLLOWING AND REPAIR AS NEEDED.
 - DETERMINE THE BOTTOM ELEVATION OF RETENTION POND. IF RETENTION HAS ACCUMULATED MORE THAN FOUR (4) INCHES OF MATERIAL THEN REMOVE EXCESS MATERIAL. IT IS BEST TO CONTACT A DISTRICT REPRESENTATIVE PRIOR TO ANY LARGE SCALE MAINTENANCE.
 - DETERIORATION OF OUT FALL WEIR AND DRAINAGE STRUCTURES.
- IT IS THE OWNERS RESPONSIBLE TO INSPECT AND MAINTAIN THE WATER RETENTION SYSTEM ON A REGULAR BASIS.
- DO NOT CUT, MOW, USE HERBICIDE OR GRASS CARP TO REMOVE ANY OF THE VEGETATION IN THE LITTORAL ZONE WITHOUT APPROVAL FROM THE DISTRICT.

STORM WATER CONSTRUCTION INSTRUCTIONS:

- DETENTION AREAS AND SWALES SHALL BE ROUGHED IN INITIALLY TO GENERATE SITE FILL AND INTERCEPT CONSTRUCTION RUNOFF.
- CARE SHALL BE EXERCISED TO PREVENT DISTURBANCE TO THE NATURAL VEGETATION IN AREAS NOT PROPOSED FOR IMMEDIATE CONSTRUCTION.
- AS SOON AS PRACTICAL, ALL DRESSED SLOPES AND DISTURBED AREAS SHALL BE SODDED OR SEEDED AND MULCHED TO PREVENT EROSION.
- HAY BALES AND/OR SILT SCREENS SHALL BE INSTALLED ADJACENT TO THE WORK AREAS TO PREVENT SEDIMENT TRANSPORT PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.
- ANY SILT OR OTHER MATERIAL THAT COLLECTS IN THE POND BOTTOM DURING CONSTRUCTION SHALL BE REMOVED PRIOR TO FINAL GRADING AND SODDING.
- ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN PLACE PRIOR TO START OF CONSTRUCTION AND SHALL REMAIN IN PLACE UNTIL SITE IS STABILIZED.
- ALL SODDED SLOPES OVER 4 TO 1 SHALL BE INSTALLED WITH SOD PEGS.

GRADING AND DRAINAGE NOTES:

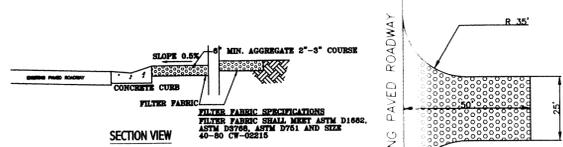
- ALL STUMPS, ROOTS AND DELETERIOUS MATERIAL (I.E. MUCK, PEAT, BURIED DEBRIS) SHALL BE REMOVED FROM THE PROPOSED BUILDING AREA, PAVEMENT AREA AND EXCAVATIONS USED FOR THE INSTALLATION OF ANY PIPING. EXCAVATED AREAS ARE TO BE BACKFILLED WITH APPROVED MATERIALS AND COMPACTED AS SHOWN ON THESE PLANS. ALL DELETERIOUS MATERIAL SHALL BE STOCKPILED AND REMOVED FROM THE SITE AS DIRECTED BY THE OWNER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING EXCAVATIONS AGAINST COLLAPSE AND WILL PROVIDE BRACING, SHEETING OR SHORING, AS NECESSARY. TRENCHES SHALL BE KEPT DRY WHILE PIPE AND APPURTENANCES ARE BEING PLACED. DEWATERING SHALL BE USED AS REQUIRED.
- ALL STORM SEWER PIPE SHALL BE REINFORCED CONCRETE CLASS IV (ASTM C-76) UNLESS OTHERWISE NOTED.
- ALL STORM STRUCTURES SHALL BE GROUTED TO THE INVERT ELEVATION OF THE STORM PIPE. STORM PIPE SHALL BE SAW-CUT EVEN WITH THE STRUCTURE WALL. GROUT AROUND PIPES FOR A WATER TIGHT AND SMOOTH FINISH.
- ALL DRAINAGE STRUCTURE GRATES AND COVERS WITHIN TRAFFIC AREAS SHALL BE TRAFFIC RATED FOR H-20 LOADINGS.
- THE CONTRACTOR IS TO SOD THE RETENTION/DETENTION POND WITH SAND GROWN BAHIA GRASS IMMEDIATELY FOLLOWING CONSTRUCTION OF THE POND.
- MATERIALS AND CONSTRUCTION METHODS FOR STREETS AND STORM DRAINAGE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LOCAL REGULATORY AGENCY AND/OR LATEST FDOT DESIGN STANDARDS.
- ALL ELLIPTICAL REINFORCED CONCRETE PIPE JOINTS UNDER PAVEMENT, DRIVEWAYS AND SIDEWALKS SHALL BE WRAPPED WITH MIRAFI 140N FILTER FABRIC OR EQUAL. FABRIC TO BE A MIN. OF 30" IN WIDTH AND CENTERED ON PIPE'S JOINT.

PAVING NOTES:

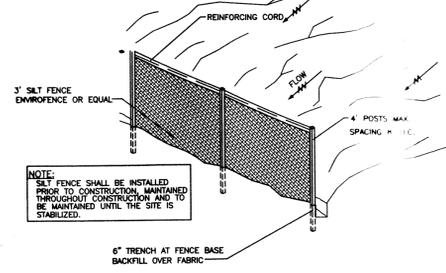
- PAVEMENT FOR THE PROJECT SHALL CONSIST OF 1-1/4" ASPHALT, TYPE II, OVER 6" LIMEROCK BASE COMPACTED TO 98% DENSITY, ASHTO T-180, 8"-SUBGRADE COMPACTED TO 98% DENSITY.
- ALL PAVEMENT MARKINGS SHALL BE MADE WITH TRAFFIC PAINT IN ACCORDANCE TO FDOT STANDARD SPECIFICATIONS 971-12. PARKING STALL STRIPING TO BE 4" WIDE PAINTED WHITE, UNLESS STATED OTHERWISE.
- STANDARD INDEXES REFER TO THE LATEST EDITION OF FDOT "ROADWAY AND TRAFFIC DESIGN STANDARDS".

PAVING, GRADING & DRAINAGE TESTING AND INSPECTION REQUIREMENTS:

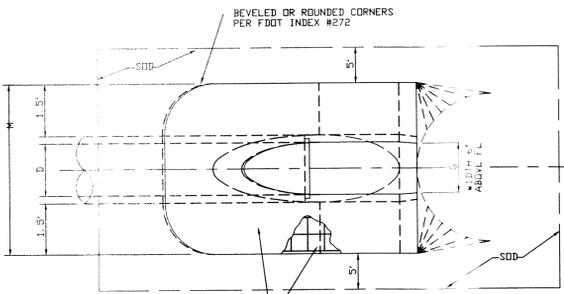
- THE CONTRACTOR SHALL MAINTAIN THE STORM DRAINAGE SYSTEM UNTIL FINAL ACCEPTANCE OF THE PROJECT.
- THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE APPLICABLE TESTING WITH THE SOILS ENGINEER. TESTS WILL BE REQUIRED PURSUANT WITH THE TESTING REQUIREMENTS FOUND IN THE ENGINEERING CONSTRUCTION DRAWINGS. UPON COMPLETION OF THE WORK, THE SOILS ENGINEER MUST SUBMIT CERTIFICATIONS TO THE OWNER'S ENGINEER, STATING THAT ALL REQUIREMENTS HAVE BEEN MET.



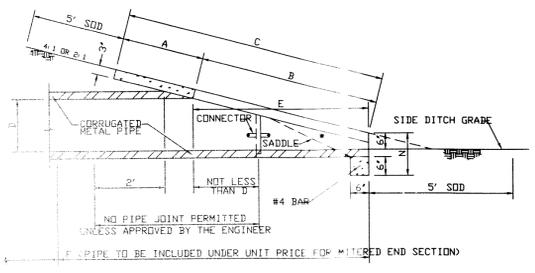
TEMPORARY CONSTRUCTION ENTRANCE



SILT FENCE DETAIL
SCALE: NTS



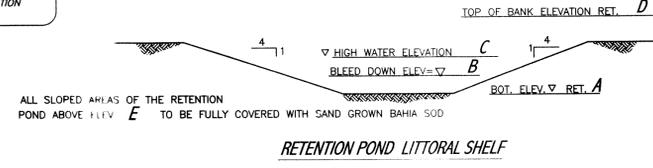
PLAN VIEW - SINGLE PIPE



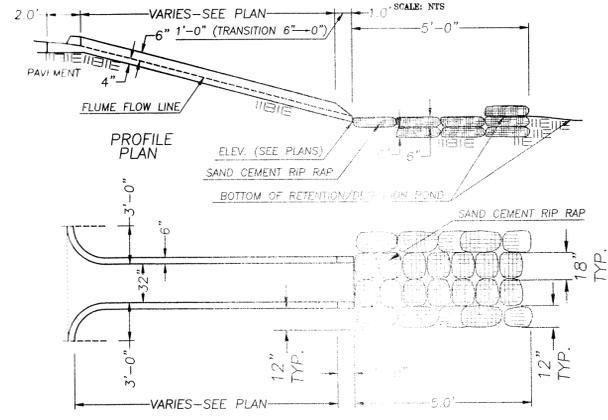
ELEVATION VIEW - SECTION THROUGH PIPE
NOTE: REFER TO FDOT INDEX #272 FOR FURTHER DETAILS.

#	A	B	C	D	E
POND	14.0	17.05	17.27	18.0	18.5

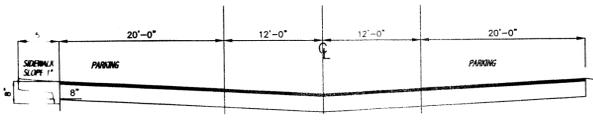
MITERED END SECTION
SCALE: NTS



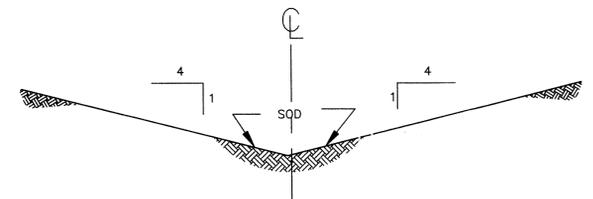
RETENTION POND LITTORAL SHELF



CONCRETE FLUME
NTS.



PARKING LOT SECTION



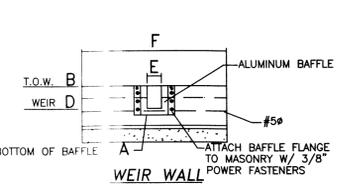
NOTE: SEE GRADING PLAN FOR PROPOSED ELEVATIONS

TYP. SWALE
SCALE: NTS

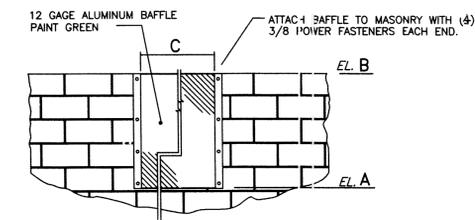
#	A	B	C	D	E	F
WEIR	15.75	18.0	3.00'	17.05	2.00	12'

NOTE:
1. CONCRETE 3000 PSI (MIN)
2. STEEL REINFORCED 40 KSI
3. HORIZONTAL REINFORCEMENT BETWEEN EACH COURSE

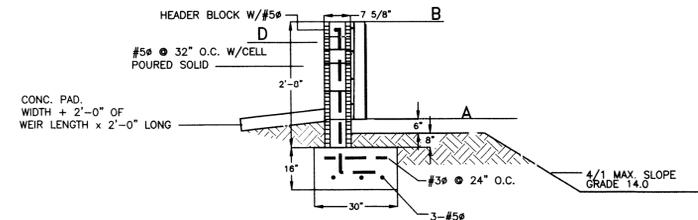
KEY:
A BOTTOM OF BAFFLE
B TOP OF STRUCTURE
C WIDTH OF BAFFLE
D OVERFLOW ELEVATION
E WEIR OPENING
F OVERALL STRUCTURE LENGTH



WEIR WALL



BAFFLE DETAIL



(TYP) CROSS SECTION
SCALE 1/2" = 1'-0"

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BY DOCUMENT
 PRELIMINARY DOCUMENT
 PERMIT DOCUMENT
 FIELD DOCUMENT

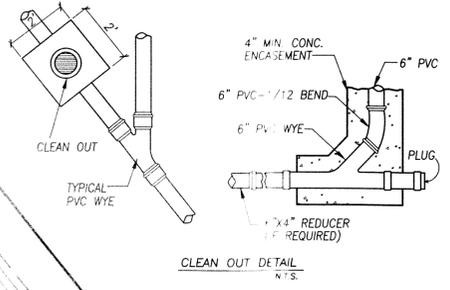
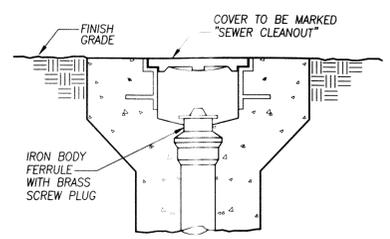
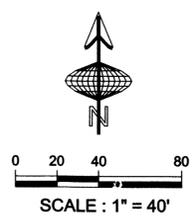
CONSTRUCTION PLANS AND SPECIFICATIONS FOR GRADING, PAVING AND DRAINAGE SITE PLAN FOR R.J. KIELTY PLUMBING, HEATING & COOLING MASSACHUSETTS AVE. AND OSTEN RD. NEW PORT RICHEY, FLORIDA SECTION 34, TWP. 25S. RGE. 16E.

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CHECKED: JT
DATE: APRIL 2015
SCALE: AS SHOWN
JOB NO.: 14-4-160
SHEET: SP6
OF 12 SHEETS

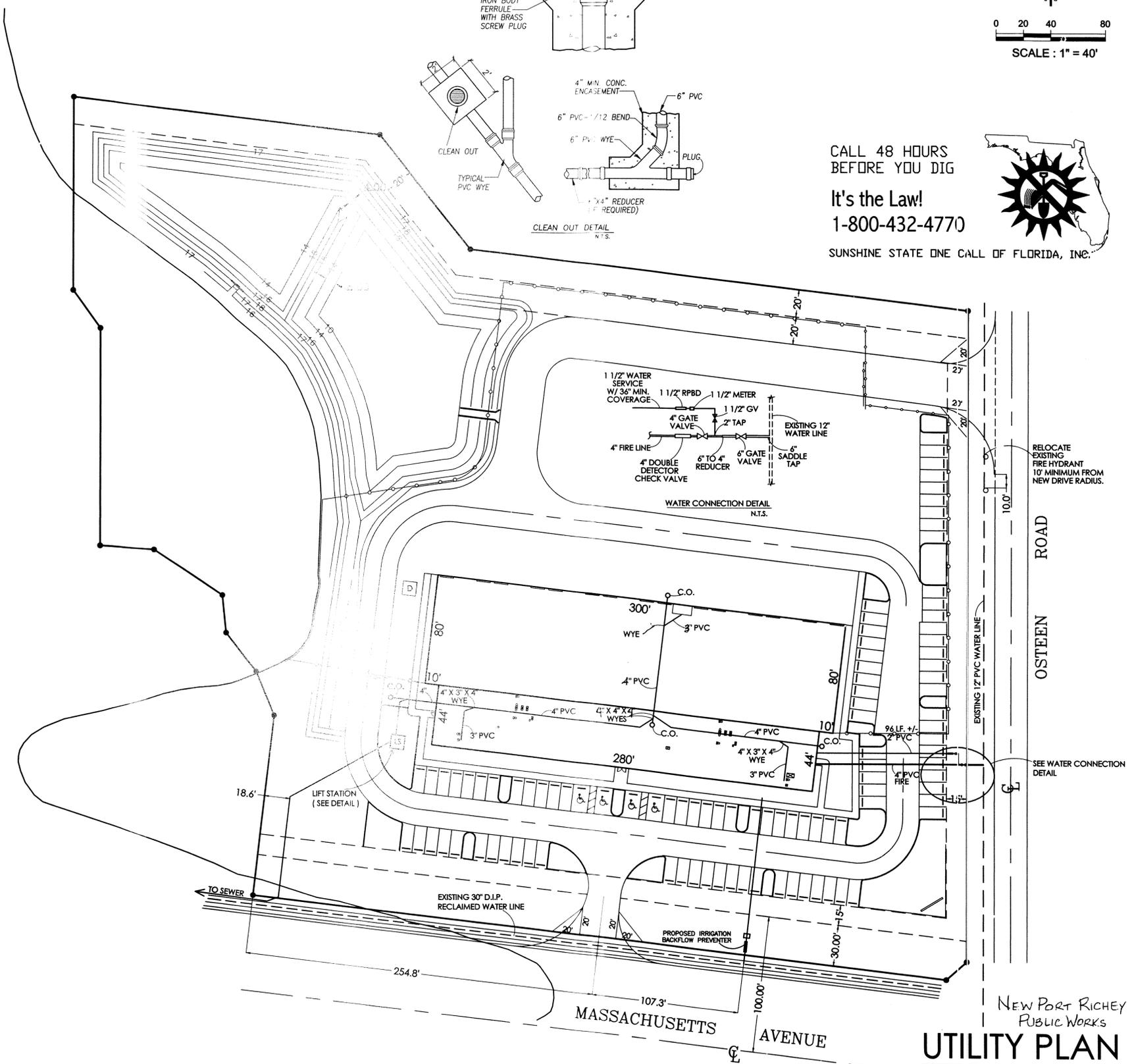
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BID DOCUMENT PRELIMINARY DOCUMENT
 PERMIT DOCUMENT
 FIELD DOCUMENT

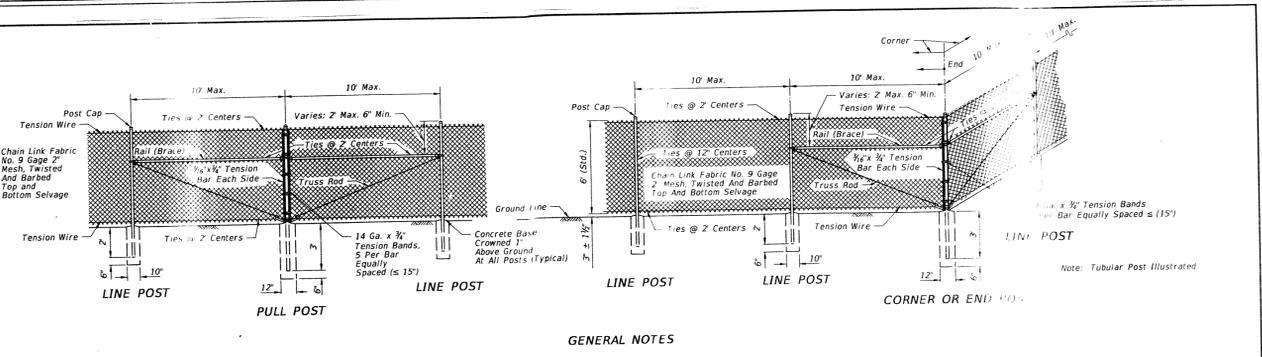
**CONSTRUCTION PLANS AND SPECIFICATIONS
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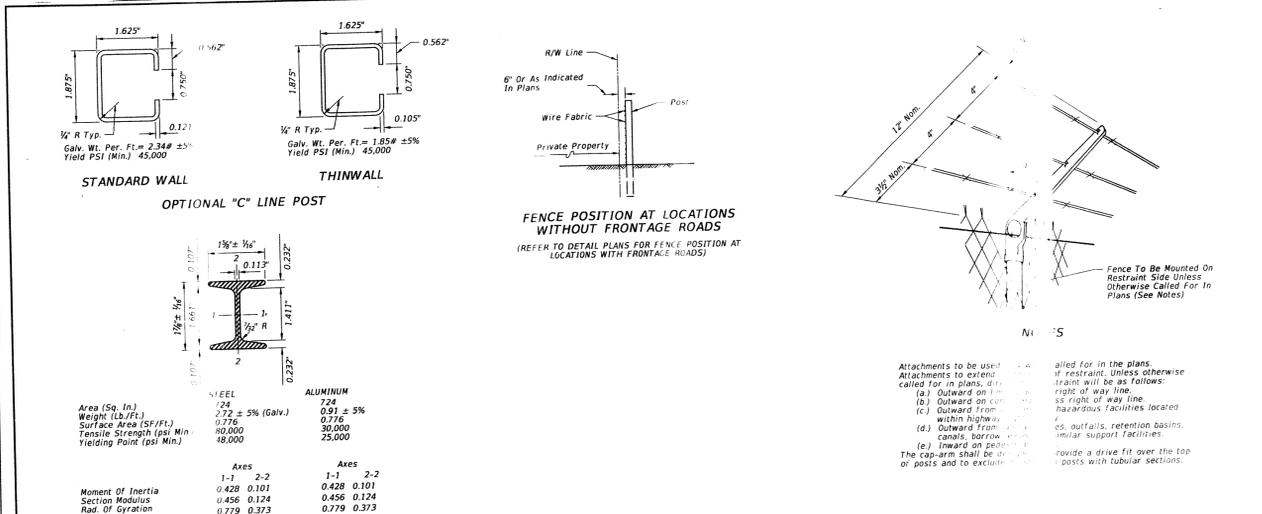
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CHECKED
O.J.T.
DATE
APRIL 2015
SCALE
AS SHOWN
JOB NO.
14-4160
SHEET
SP7
OF 12 SHEETS

* I HEREBY CERTIFY THAT I HAVE REVIEWED THE ATTACHED DESIGN AND FOUND IT TO BE IN COMPLIANCE WITH THE FBC 2010.



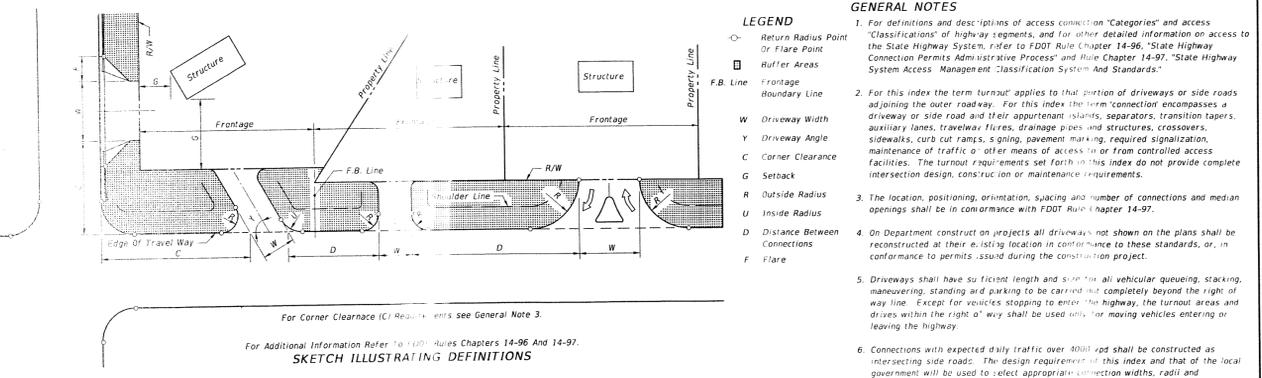
- GENERAL NOTES**
- This fence to be used generally in urban areas.
 - For supplemental information refer to Section 550 of FDOT Standard Specifications.
 - Chain link fabric, post, ratchet rods, tension wires, ties, stretchers, gates and all miscellaneous fittings and hardware shall meet the requirements of AASHTO and ASTM signifi current reference.
 - Fence Component Options:
 - A. Line post options:
 - Galvanized steel pipe, Schedule 40-1 1/2 nominal dia. zinc galvanized at the rate of 1.8 oz./ft.²; ASTM A53 Table 2, ASTM F1083, and AASHTO M111.
 - Aluminum coated steel pipe, ASTM A53 Table 2 (Grade A or B), Schedule 40-1 1/2 nominal dia., 1.90 OD, coated at the rate 0.40 oz./ft.²; AASHTO M111.
 - Aluminum alloy pipe, 2" nominal dia., ASTM B241 or B221, Alloy 6063 T6.
 - Steel H-Beam, 1 1/2" x 1 1/2", zinc galv. 1.8 oz./ft.²; AASHTO M111 and Detail.
 - Aluminum alloy H-Beam, 1 1/2" x 1 1/2", zinc-5% aluminum (alternating), ASTM F1043 and Detail.
 - Steel C-1 1/2" x 1 1/2", galv. 1.8 oz./ft.²; AASHTO M111, OR, 0.9 oz./ft.², zinc-5% aluminum (alternating), ASTM F1043 and Detail.
 - Resistance neck of discontinued A446/A446M base materials; ASTM F669 Group IV (Alternative Design); fence industry 2" OD, 1 1/2" NPS, 1900' dec. equiv., 0.120" min. wall thickness, and min. wt. 2.28 lb./ft.; with ASTM F1043 metric equivalent internal coating Types A, B, C or D and external coating Types A, B, or C; the chrome conversion coating of external coating Type B shall have a thickness of 15µg/in² min. and the polymer film topcoat shall have a thickness of 0.0025 min.; internal and external coatings are not restricted to the combinations of Table 2, ASTM F1043.
 - Corner, end, and pull post options:
 - Galvanized steel pipe, Schedule 40-2" nominal dia. zinc galvanized at the rate of 1.8 oz./ft.²; ASTM A53 Table 2, ASTM F1083, and AASHTO M111.
 - Aluminum coated steel pipe, ASTM A53 Table 2 (Grade A or B), Schedule 40-2" nominal dia., 2.375 OD, coated at the rate 0.40 oz./ft.²; AASHTO M111.
 - Aluminum alloy pipe, 2 1/2" nominal dia., ASTM B241 or B221, Alloy 6063 T6.
 - Resistance neck of discontinued A446/A446M base materials; ASTM F669 Group IV (Alternative Design); fence industry 2 1/2" OD, 2" NPS, 2,275' dec. equiv., 0.130" min. wall thickness, and min. wt. 3.17 lb./ft.; with ASTM F1043 metric equivalent internal coating Types A, B, C or D and external coating Types A, B, or C; the chrome conversion coating of external coating Type B shall have a thickness of 15µg/in² min. and the polymer film topcoat shall have a thickness of 0.0025 min.; internal and external coatings are not restricted to the combinations of Table 2, ASTM F1043.
 - Tension wire options:
 - Steel wire No. 7 gage zinc galvanized at the rate of 1.8 oz./ft.²; AASHTO M181.
 - Aluminum alloy wire with a diameter of 0.1875" or larger, galvanized at the requirements of ASTM B211, Alloy 5056 Temper H38, or Alclad Alloy 5056 Temper H38.
 - Aluminum coated steel wire No. 7 gage coated at the rate of 0.40 oz./ft.²; AASHTO M181.
 - Tie wire and hog ring options:
 - Steel wire No. 9 gage zinc galvanized at the rate of 1.8 oz./ft.²; AASHTO M181.
 - Aluminum alloy wire with a diameter of 0.1443" or larger, galvanized at the requirements of ASTM B211, Alloy 5056 Temper H38, or Alclad Alloy 5056 Temper H38.
 - Aluminum coated steel wire No. 7 gage coated at the rate of 0.40 oz./ft.²; AASHTO M181.

LAST REVISION	DESCRIPTION:	2015	FENCE TYPE B	INDEX NO.	SHEET NO.
07/01/09		DESIGN STANDARDS		802	1 of 3



- BARR WIRE ATTACHMENT**
- Base plate identification shall be considered an integral part of the attachment.
 - Post to be plumbed to vertical.
 - Anchor bolts (Galvanized steel 1/2" Cast In Place) shall be headed bolts with adhesive anchors set in drilled holes with an embedment length of 12" and 3/8" drilled holes shall be 1/8" larger in diameter than the anchor bolt.
- BASE PLATE AND ANCHOR BOLTS**
- Base plate identification shall be considered an integral part of the attachment.
 - Post to be plumbed to vertical.
 - Anchor bolts (Galvanized steel 1/2" Cast In Place) shall be headed bolts with adhesive anchors set in drilled holes with an embedment length of 12" and 3/8" drilled holes shall be 1/8" larger in diameter than the anchor bolt.

LAST REVISION	DESCRIPTION:	2015	FENCE TYPE B	INDEX NO.	SHEET NO.
07/01/09		DESIGN STANDARDS		802	3 of 3

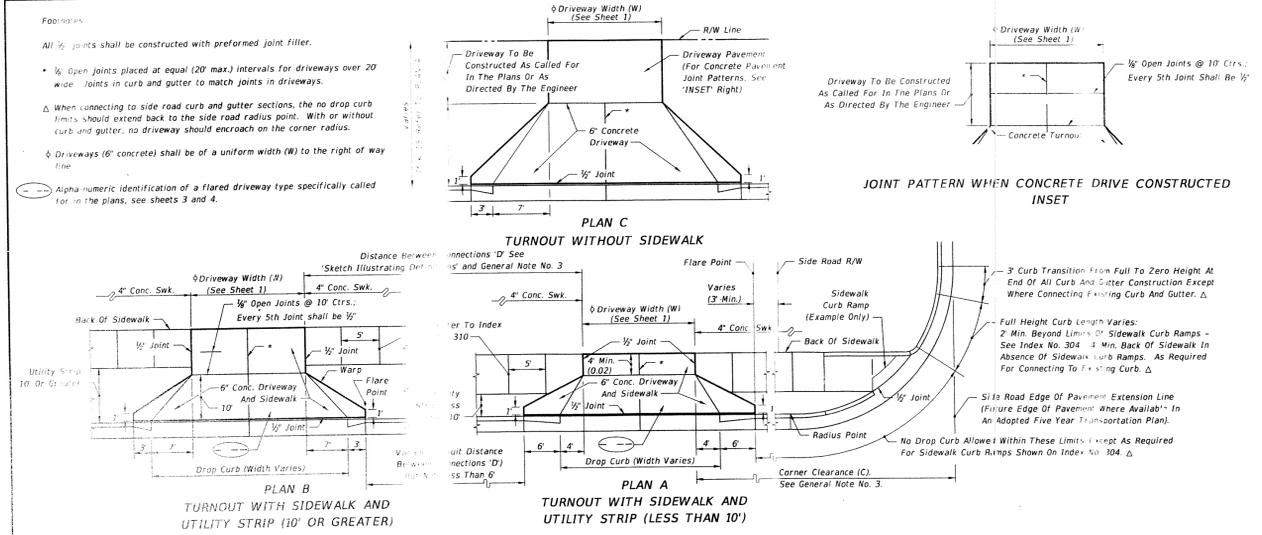


URBAN (CURB & GUTTER)

ELEMENT DESCRIPTION	URBAN (CURB & GUTTER)			RURAL		
	1-20 Trips/Day or 1-5 Trips/Hour	21-60 Trips/Day or 6-60 Trips/Hour	601-4000 Trips/Day or 61-400 Trips/Hour	1-20 Trips/Day or 1-5 Trips/Hour	21-60 Trips/Day or 6-60 Trips/Hour	601-4000 Trips/Day or 61-400 Trips/Hour
CONNECTION WIDTH W	12 Min. 24 Max.	24 Min. 36 Max. Δ	24 Min. 36 Max. Δ	12 Min. 24 Max.	24 Min. 36 Max. Δ	24 Min. 36 Max. Δ
FLARE (Drop Curb) F	10 Min. 10 Min.	10 Min. 10 Min.	10 Min. 10 Min.	N/A	N/A	N/A
RETURNS (Radius) R & D	N/A	Δ	Δ	15 Min. 25 Min. 50 Max.	25 Min. 50 Min. 75 Max.	25 Min. 50 Min. 75 Max. (or 3-Centered Curves)
ADJACENT DRIVE Y	60°-90°	60°-90°	60°-90°	60°-90°	60°-90°	60°-90°
INTERNAL ISLAND (Drop Median)	12 Min. All categories.	12 Min. All categories.	12 Min. All categories.	4-22 Wide	4-22 Wide	4-22 Wide
STRACK G	12 Min. All categories.	12 Min. All categories.	12 Min. All categories.	See General Note No. 5.	See General Note No. 5.	See General Note No. 5.

NOT INTENDED FOR FULL INTERSECTION DESIGN SUMMARY OF GEOMETRIC REQUIREMENTS FOR TURNOUTS

LAST REVISION	DESCRIPTION:	2015	TURNOUTS	INDEX NO.	SHEET NO.
07/01/13		DESIGN STANDARDS		515	1 of 7



- SPECIAL NOTES FOR URBAN FLARED TURNOUTS**
- Drop curb, concrete sidewalks (6" thick) and driveways (6" thick) shall meet at the curb. The driveway foundation shall meet the requirements of Subarticle 522-4.
 - For details of drop curb and sidewalk curb ramps refer to indexes Nos. 300 and 301 respectively.
 - Three turnouts are constructed within existing curb and gutter, the existing curb and gutter shall be removed either to the nearest joint beyond the flare point or to the extent that no remaining section is less than 5' long; and, drop curb constructed in accordance with Notes Nos. 1 and 2.
 - For turnouts with radial returns see the requirements under the "Summary of Geometric Requirements for Turnouts", the "General Notes", the details of "Rural Turnout Construction" and the detail of "Limits of Clearing & Grubbing, Subarticle 522-4 At Intersections".
- DESIGN NOTES FOR URBAN FLARED TURNOUTS**
- Driveways indicated as "Adverse Applications" are those with slopes that can cause overhang drag for representative standard passenger vehicles under fully loaded conditions, or those with slopes that can cause drivers who are leaving the roadway to slow or pause to the extent that traffic demand volumes will be impeded.
 - Driveways indicated as "Marginal Applications" are those with slopes that can cause overhang drag for representative standard passenger vehicles under fully loaded conditions when the driveway is located on the low side of fully super-elevated roadways.
 - Driveways indicated as "General Applications" are those with slopes that can readily accommodate representative standard passenger vehicles and those that can accommodate representative standard trucks, vans, buses and recreational vehicles operating under normal crown and super-elevation conditions.
 - The standard flared driveway on this index may not accommodate vehicles with low beds, low undercarriage or low appogage features. Where such vehicles are design vehicles, driveways shall have site specific flare designs in category III designs.
 - When specific flare type driveways shall be constructed the type shall be designated in the plans using the assigned alpha-numeric identification.

LAST REVISION	DESCRIPTION:	2015	TURNOUTS	INDEX NO.	SHEET NO.
07/01/13		DESIGN STANDARDS		515	2 of 7

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CHECKED	O.J.T.
DATE	APRIL 2015
SCALE	AS SHOWN
SHEET NO.	14-4160
SHEET	SP9

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LANDSCAPE SUMMARY AND SPECIFICATION

SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	SPECIFICATION	NATIVE TO FLORIDA	DROUGHT TOLERANT
CM	5	LAGERSTROEMIA INDICA	CRABE W/RYLE	MIN. 2" CALIPER MIN. 6' HEIGHT AT INSTALLATION	YES	YES
LO	5	QUERCUS VIRGINIANA	LIVE OAK	MIN. 2" CALIPER MIN. 6' HEIGHT AT INSTALLATION	YES	YES
WM	5	MYRTIA CERIFERA	WAX MYRTLE	MIN. 2" CALIPER MIN. 6' HEIGHT AT INSTALLATION	YES	YES
BC	8	TAXODIUM DISTICHUM	BALD CYPRESS	MIN. 2" CALIPER MIN. 6' HEIGHT AT INSTALLATION	YES	YES
EL	4	ULMUS SPP.	ELM	MIN. 2" CALIPER MIN. 6' HEIGHT AT INSTALLATION	YES	YES
M	3	ACER RUBRUM	MAPLE	MIN. 2" CALIPER MIN. 6' HEIGHT AT INSTALLATION	YES	YES
LG	8	MAGNOLIA GRANDIFLORA	LITTLE GEM	MIN. 2" CALIPER MIN. 6' HEIGHT AT INSTALLATION	YES	YES
SP	15	SABAL PALMETTO	SABAL PALM	6" CLEAR TRUNK CLUSTER OF THREE (3)	YES	YES
VS	63	VBURNUM SUSPENSUM	SANDBARREN VBURNUM	3 GAL. 18% FULL	NO	YES
VO	80	VBURNUM OBOVATUM	WALERT'S VBURNUM	3 GAL. 18% FULL	YES	YES
IS	99	ILEX SHILLING	ILEX V. MIMICRUM "SCHLITZIG INWART"	3 GAL. 18% FULL	YES	YES
IG	79	ILEX GLABRA	GALLEBERRY	3 GAL. 18% FULL	YES	YES-MEDIUM
MF	95	MYRTICANTHUS FRAGRANS	SIMPSON'S STOPPER	3 GAL. 18% FULL	YES	YES
LS	110	LONICERA SEMPERVIRENS	CORAL HONEYBUCKLE	1 GAL. FULL POTS	YES	YES-MEDIUM
DV	130	DIETES VEGETA	AFRIKAN IRIS	1 GAL. FULL POTS	NO	YES-MEDIUM
LM	85	LIRIOPE MUSCARI	EVERGREEN GRANT	1 GAL. FULL POTS	NO	YES
GP	120	GALLARDA PULCHELLA	CHALKY FLOWER	1 GAL. FULL POTS	YES	YES
GS	120	GELSEBIUM SEMPERVIRENS	CHALMERA YELLOW JASMINE	1 GAL. FULL POTS	YES	YES-MEDIUM

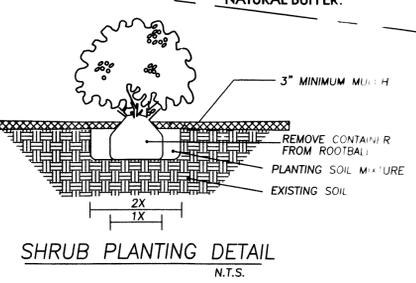
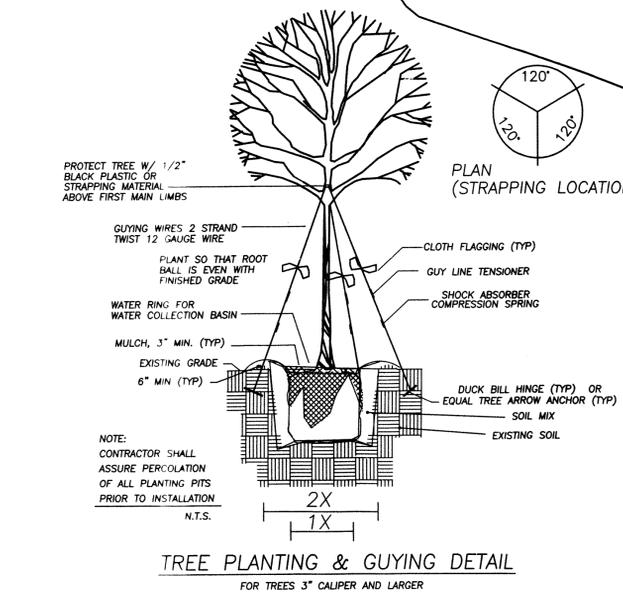
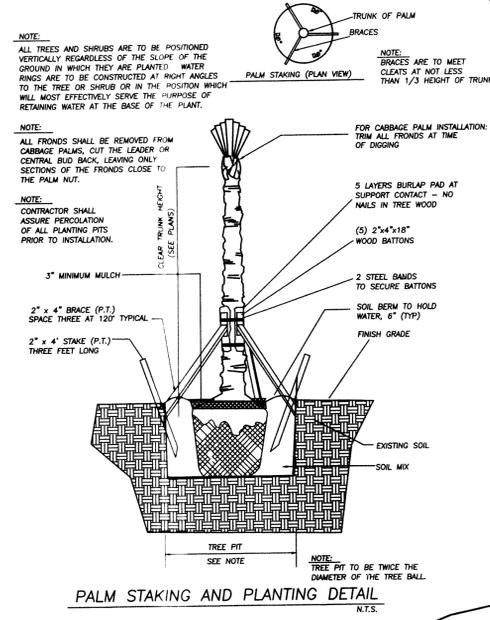
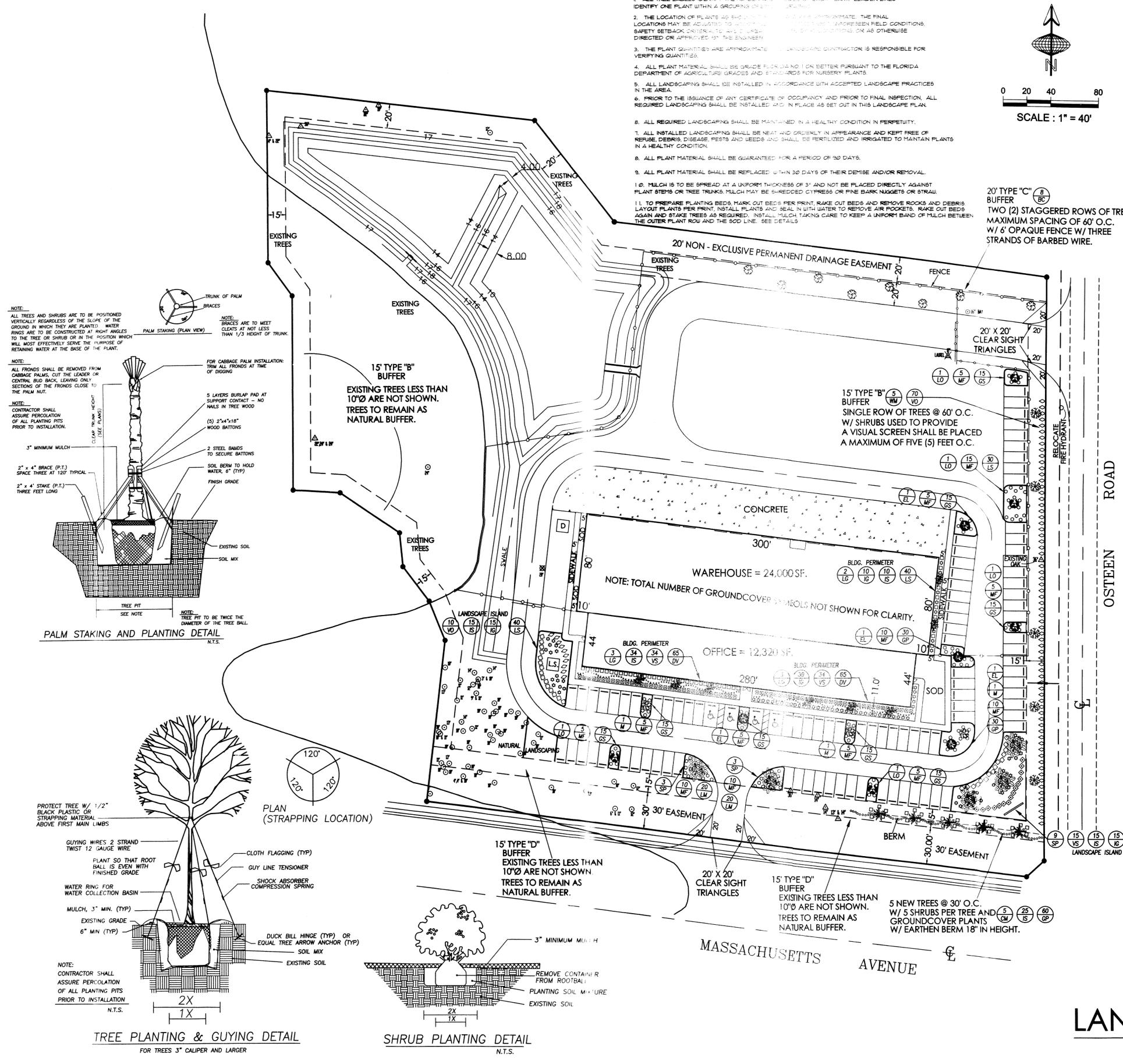
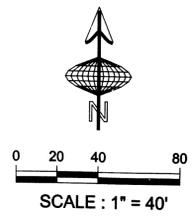
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PH. (727) 848-2921
FAX (727) 847-9391

DRAWN: D.S.P.
CHECKED: O.J.T.
DATE: APRIL 2015
SCALE: AS SHOWN
JOB NO: 14-4160
SHEET: LS10
OF 12 SHEETS

- ALL TREE LABELS IDENTIFY THE NUMBER AND SPECIES OF EACH PLANT. LEADER LINES IDENTIFY ONE PLANT WITHIN A GROUPING OR SET OF PLANTS.
- THE LOCATION OF PLANTS AS SHOWN ON THIS PLAN IS APPROXIMATE. THE FINAL LOCATIONS MAY BE ADJUSTED TO ACCOMMODATE UNFORSEEN FIELD CONDITIONS. SAFETY SETBACKS SHALL BE MAINTAINED AT ALL TIMES UNLESS OTHERWISE DIRECTED OR APPROVED BY THE ENGINEER.
- THE PLANT QUANTITIES ARE APPROXIMATE. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR VERIFYING QUANTITIES.
- ALL PLANT MATERIAL SHALL BE GRADE PACKED NO. 1 OR BETTER PURSUANT TO THE FLORIDA DEPARTMENT OF AGRICULTURE GRADING AND STANDARDS FOR NURSERY PLANTS.
- ALL LANDSCAPING SHALL BE INSTALLED IN ACCORDANCE WITH ACCEPTED LANDSCAPE PRACTICES IN THE AREA.
- PRIOR TO THE ISSUANCE OF ANY CERTIFICATE OF OCCUPANCY AND PRIOR TO FINAL INSPECTION, ALL REQUIRED LANDSCAPING SHALL BE INSTALLED AND IN PLACE AS SET OUT IN THIS LANDSCAPE PLAN.
- ALL REQUIRED LANDSCAPING SHALL BE MAINTAINED IN A HEALTHY CONDITION IN PERPETUITY.
- ALL INSTALLED LANDSCAPING SHALL BE NEAT AND ORDERLY IN APPEARANCE AND KEPT FREE OF REFUSE, DEBRIS, DISEASE, PESTS AND WEEDS AND SHALL BE FERTILIZED AND IRRIGATED TO MAINTAIN PLANTS IN A HEALTHY CONDITION.
- ALL PLANT MATERIAL SHALL BE GUARANTEED FOR A PERIOD OF 90 DAYS.
- ALL PLANT MATERIAL SHALL BE REPLACED WITHIN 30 DAYS OF THEIR DEMISE AND/OR REMOVAL.
- MULCH IS TO BE SPREAD AT A UNIFORM THICKNESS OF 3" AND NOT BE PLACED DIRECTLY AGAINST PLANT STEMS OR TREE TRUNKS. MULCH MAY BE SHREDDED CYPRESS OR FINE BARK NUGGETS OR STRAW.
- TO PREPARE PLANTING BEDS, MARK OUT BEDS PER PRINT, RAKE OUT BEDS AND REMOVE ROCKS AND DEBRIS. LAYOUT PLANTS PER PRINT, INSTALL PLANTS AND SEAL IN WITH WATER TO REMOVE AIR POCKETS. RAKE OUT BEDS AGAIN AND STAKE TREES AS REQUIRED. INSTALL MULCH TAKING CARE TO KEEP A UNIFORM BAND OF MULCH BETWEEN THE OUTER PLANT ROW AND THE SOE LINE. SEE DETAILS.



GROUND COVER PLANTS SHALL BE SPACED SO AS TO PRESENT A FINISHED APPEARANCE AND TO OBTAIN A REASONABLY COMPLETE COVERAGE WITHIN ONE (1) YEAR AFTER PLANTING. NON-LIVING GROUND COVER, SUCH AS MULCH, GRAVEL, ROCK, ETC., SHALL BE USED IN CONJUNCTION WITH LIVING PLANTS SO AS TO COVER EXPOSED SOIL AND SUPPRESS FUGITIVE DUST.

(ALTERNATE PLANTINGS PER OWNER)

ALL INSTALLED LANDSCAPING SHALL BE NEAT AND ORDERLY IN APPEARANCE AND KEPT FREE OF REFUSE, DEBRIS, DISEASE, PESTS AND WEEDS, AND SHALL BE FERTILIZED AND IRRIGATED AS NEEDED TO MAINTAIN PLANTS IN A HEALTHY CONDITION.

USE 100% PINE STRAW OR CYPRESS MULCH SPREAD 3" UNIFORM THICKNESS MULCH SHOULD NOT BE PLACED AGAINST TRUNK OF TREE OR PLANT STEM. ALL PLANTS ARE TO BE FLORIDA #1 OR BETTER.

TABULATIONS REQUIRED PER PASCO COUNTY LANDSCAPE ORDINANCE

- 30% NATIVE: 30% OF 1,001 (TOTAL NUMBER OF PLANTS) = 300 PLANTS NOT INCLUDING TREES. THIS LANDSCAPE DESIGN EXCEEDS THE REQUIREMENT - 703 PLANTS ARE NATIVE.
- 50% DROUGHT TOLERANT REQUIREMENT. 50% OF (TOTAL NUMBER OF PLANTS) = 500 PLANTS NOT INCLUDING TREES. THIS LANDSCAPE DESIGN EXCEEDS THE REQUIREMENT - 1,001 PLANTS ARE DROUGHT TOLERANT.
- (MAXIMUM OF 1 SPECIES) 25% OF 565 (TOTAL NUMBER OF GROUNDCOVER) = 141. THIS LANDSCAPE DESIGN MEETS THE REQUIREMENTS. 130 MAXIMUM PLANTINGS OF 1-KIND DIETES VEGETA.
- (MAX. OF 1 SPECIES) 25% OF 436 (TOTAL # OF SHRUBS) = 109. THIS LANDSCAPE DESIGN MEETS THE REQUIREMENTS. 99 MAXIMUM PLANTINGS OF 1-KIND ILEX SHILLING.

INTERIOR LANDSCAPING FOR VEHICULAR USE AREAS
TOTAL VEHICULAR USE AREA = 89,212 S.F.
10% REQUIRED LANDSCAPING VEHICULAR USE = 8,921 S.F.
PROVIDED: TOTAL INTERIOR LANDSCAPING = 7,964 S.F.
INCLUDING ONE SHADE TREE PER 200 S.F. = 45 (MIN.) 53 PROVIDED PLUS SHRUBS AND GROUNDCOVER TO PROVIDE A FINISHED APPEARANCE AND ADEQUATE COVERAGE.
THIS LANDSCAPE DESIGN EXCEEDS THE REQUIREMENTS.

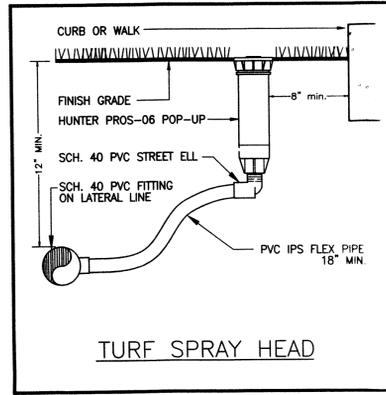
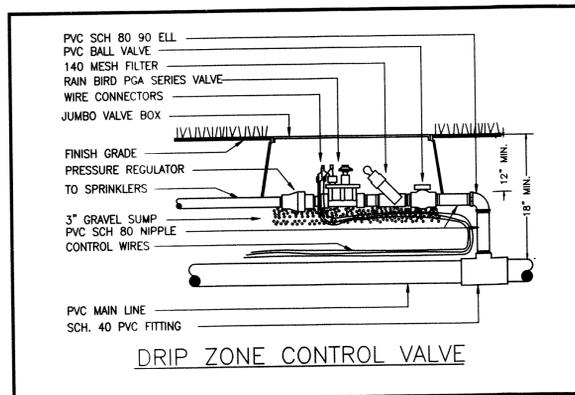
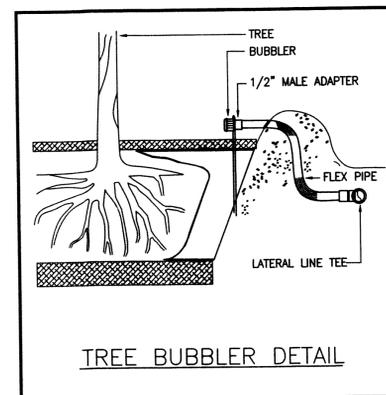
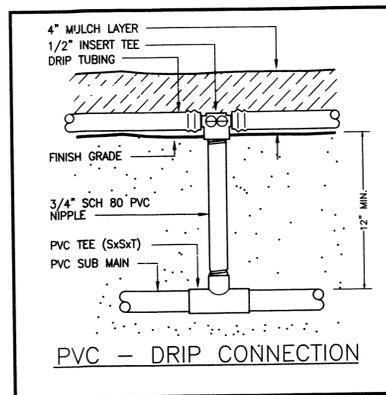
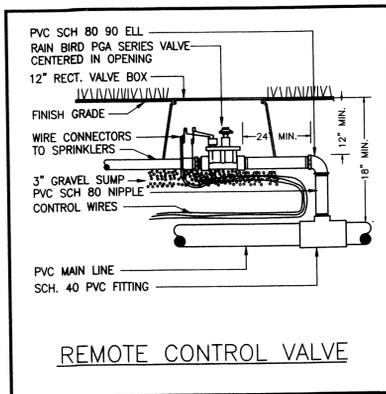
BUILDING PERIMETER LANDSCAPING
TOTAL BUILDING PERIMETER 36,320 SQ. FT.
10% PERIMETER LANDSCAPE BEDS REQUIREMENT = 3,632 S.F.
LANDSCAPE BEDS PROVIDED = 3,771 S.F. MIN.
THIS LANDSCAPE DESIGN EXCEEDS THE REQUIREMENTS.

LANDSCAPE PLAN

* I HEREBY CERTIFY THAT I HAVE REVIEWED THE ATTACHED DESIGN AND FOUND IT TO BE IN COMPLIANCE WITH THE FBC 2010.

IRRIGATION NOTES:

1. Irrigation system design requirements: 20 GPM @ a minimum of 60 PSI at the point of connection. The Irrigation Contractor shall verify the available GPM and PSI prior to installation of the system.
2. Do not willfully install the irrigation system as shown on the drawings when it is obvious in the field that conditions exist that might not have been considered in the design process. For example: obstructions, grade differences, water levels, dimensional differences, etc. Refer to the Landscape Plan to avoid conflicts with proposed trees or shrubs.
3. Piping may sometimes be indicated as being located in unlikely areas: i.e., under buildings or pavement, outside of property lines, in lakes or ditches, etc. This is done for graphic clarity only. Whenever possible, piping is to be installed in "open, green" areas.
4. If required, the Irrigation Contractor shall provide the necessary "Right of Way" use permits.
5. Pipe sizes shall conform to those on the drawings. Substituting with smaller pipe sizes will not be permitted.
6. Mainline is to be installed with a minimum of 18" depth of cover. Lateral lines are to be installed with a minimum of 12" depth of cover.
7. Unless otherwise indicated, all sleeves are to be PVC Sch 40 and two (2) nominal sizes larger than the pipe to be sleeved. For example: The sleeve for a 2" pipe shall be 3". No irrigation sleeve shall be smaller than 2".
8. Wherever practical, install valves in mulched beds and/or out of high traffic areas. All valves, flush valves and wire splices shall be installed in Carson structural foam "plastic" valve boxes as follows:
Remote Control Valves #1419B-12, 12" std. rec. box
Isolation Gate Valves #910-12, 10" round pit
Wire Splices #910-12, 10" round pit
9. Refer to Valve Designation Symbols for controller, station number and designed flow rate for each remote control valve.
10. All 24 volt control cable to be UL Listed, single strand, type UF 600 Volt control cable. Size and color as follows:
Common Wires - size AWG #14 or larger and WHITE in color.
Hot Wires - size AWG #16 or larger and RED in color.
Spare Wires - size AWG #16 or larger and BLUE in color.
11. All splices to the 24 volt control wiring shall be made with 3M #DB-6 600 volt, UL Listed direct bury splice kits. Use "yellow" or "red" kits as needed.
12. All control valve wires shall be bundled and taped together at 20' intervals and placed along the side of the mainline pipe.
13. All pop-up sprinkler heads shall be installed level and flush to grade. Mount all sprinklers on flexible connections as follows:
1/2" inlet spray heads 18" of Heavy Wall PVC IPS Hose
3/4" inlet rotor heads 18" of Heavy Wall PVC IPS Hose
14. The tops of all shrub sprinklers shall be installed 12" above the height of the surrounding plant material. For plant heights of 12" or more, support the riser with a #5 rebar stake and nylon cable ties. All risers shall be placed a minimum of 12" from any sidewalk, edge of pavement or structure.
15. Location of all sprinkler heads shall be site adjusted to minimize water overthrow onto building surfaces and walkways. Throttle valves on spray zones as required to prevent fogging.
16. Install drip tubing at grade and cover with mulch. Typical spacing for drip tubing is 18" to 24" on center. Spacing to be determined by plant layout. Refer to Landscape Plan. Anchor tubing every 7' with 8" long wire tubing stakes. Install flush valve assemblies at all tubing "dead ends". Install air/vacuum relief valves at "high points" of every section.
17. Exact controller location(s) shall be coordinated with an Owner's Representative prior to installation. Unless otherwise stated, the General Contractor shall provide 110 volt power to the controller location(s). The Irrigation Contractor is responsible for the connection from the power source to the controller(s).
18. At each irrigation controller, install a "secondary surge arrester" to the incoming (120 volt) power supply (Intermatic #AG2401 or equal).
19. At each irrigation controller, install an "earth ground grid" with a minimum of two (2) 4" x 96" grounding plates. Test the resistance to earth per NFPA Standard #780. A acceptable earth ground should have 10 ohms or less resistance. Use more plates or grounding rods as needed to achieve the desired resistance reading.
20. The wireless rain shutoff device shall be installed to meet local codes and/or minimum manufacturer's recommendations. Obstructions, vandalism and ease of service shall be considered in locating the device.
21. The IRRIGATION CONTRACTOR shall prepare an AS-BUILT drawing on reproducible paper detailing the actual installation of the irrigation system. The AS-BUILT drawings shall locate all main line piping, control wires, wire splices, sleeves and valves by showing exact measurements from permanent features (buildings, edge of pavement, power poles, fire hydrants, etc.). Include depth of cover on mainline and sleeves.
22. No product substitutions will be permitted without the written permission of the Owner's Representative. Irrigation Contractor to provide submittals to the Owner's Representative for approval prior to installation.
23. Any other equipment required that is not otherwise detailed or specified shall be installed as per manufacturer's recommendations and local code.



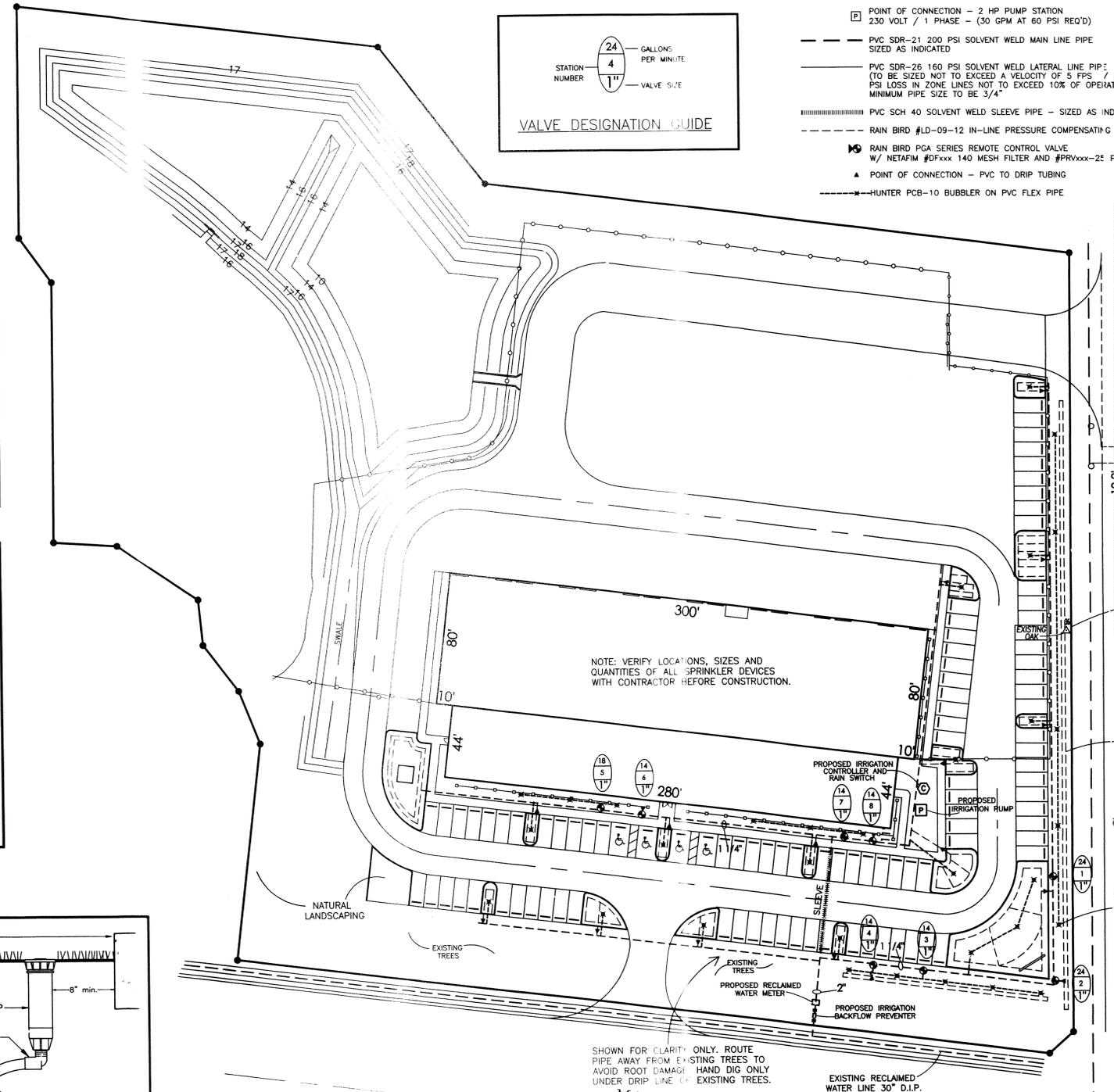
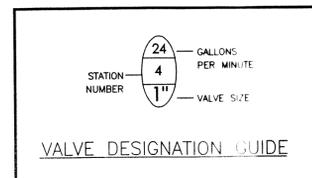
IRRIGATION CONTROLLER MOUNTING:

The Owner to provide a single dedicated, 15 amp, 110 volt circuit for the irrigation controller.

The irrigation controller should be mounted on a wall at eye level, in an area with easy access for maintenance personnel, with unobstructed space for at least one person to stand in front of it to program and / or service it.

Outdoor mounting of the irrigation controller is acceptable, unless security or appearance is an issue.

For mounting on the inside of an exterior wall the Owner should provide a 3" sweep all in the foundation directly below the controller. The sweep all should be extended with conduit as needed to an area of open "green space".

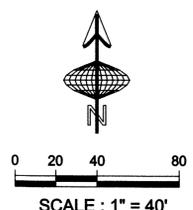


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SUNSHINE STATE ONE CALL OF FLORIDA, INC.

IRRIGATION LEGEND:

- HUNTER PROS-06 POP-UP SPRAY W/ 15' NOZZLE (ARC AS NEEDED)
- HUNTER PROS-06 POP-UP SPRAY W/ 12' NOZZLE (ARC AS NEEDED)
- HUNTER PROS-06 POP-UP SPRAY W/ 10' NOZZLE (ARC AS NEEDED)
- HUNTER PROS-06 POP-UP SPRAY W/ 8' NOZZLE (ARC AS NEEDED)
- ⊙ RAIN BIRD ESP-16 IRRIGATION CONTROLLER (SEE IRRIGATION NOTES FOR INSTRUCTIONS)
- ⊙ RAIN BIRD #WRW WIRELESS RAIN SENSOR COMBO (SEE NOTES)
- ⊙ RAIN BIRD PGA SERIES 24 VOLT REMOTE CONTROL VALVE
- ⊙ TERMINATION POINT OF SPARE WIRE FROM CONTROLLER
- ⊙ ISOLATION GATE VALVE - LINE SIZE
- ⊙ POINT OF CONNECTION - 2 HP PUMP STATION 230 VOLT / 1 PHASE - (30 GPM AT 60 PSI REQ'D)
- PVC SDR-21 200 PSI SOLVENT WELD MAIN LINE PIPE SIZED AS INDICATED
- PVC SDR-26 160 PSI SOLVENT WELD LATERAL LINE PIPE (TO BE SIZED NOT TO EXCEED A VELOCITY OF 5 FPS / MAX. PSI LOSS IN ZONE LINES NOT TO EXCEED 10% OF OPERATING PSI) MINIMUM PIPE SIZE TO BE 3/4"
- ⋯ PVC SCH 40 SOLVENT WELD SLEEVE PIPE - SIZED AS INDICATED
- RAIN BIRD #LD-09-12 IN-LINE PRESSURE COMPENSATING DRIP TUBING
- ⊙ RAIN BIRD PGA SERIES REMOTE CONTROL VALVE W/ NETAFFIM #DFxxx 140 MESH FILTER AND #PRVxxx-2E FRESS. REG.
- ▲ POINT OF CONNECTION - PVC TO DRIP TUBING
- HUNTER PCB-10 BUBBLER ON PVC FLEX PIPE



REVISIONS	BY

ALL IDEAS, SPECIFICATIONS AND PLANS INDICATED OR REPRESENTED BY THIS DRAWING ARE OWNED AND CONTROLLED BY THE IRRIGATION CONTRACTOR. NO PART OF THIS DRAWING IS TO BE REPRODUCED, COPIED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF THE IRRIGATION CONTRACTOR. THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DIMENSIONS AND NOTED BY AN "M" MEASUREMENT FROM THE DIMENSIONS AND CONDITIONS SHOWN ON THESE DRAWINGS.

BID DOCUMENT PRELIMINARY DOCUMENT
 PERMIT DOCUMENT FIELD DOCUMENT

CONSTRUCTION PLANS AND SPECIFICATIONS FOR GRADING, PAVING AND DRAINAGE SITE PLAN FOR R.J. KIELY PLUMBING, HEATING & COOLING MASSACHUSETTS AVE. AND OSTEN RD. NEW PORT RICHEY, FLORIDA SECTION 34, TWP. 25S. RGE. 16E.

JAMES TIPPENS
5-6-15
PE # 12217 CA 5499

JOHNSON FREY
TRENK GROUP INC.
Site & Building Design
Inspections
Residential/Commercial
Industrial
Management
5405 WATER ST.
NEW PORT RICHEY, FL 34652
PH. (727) 848-2921
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