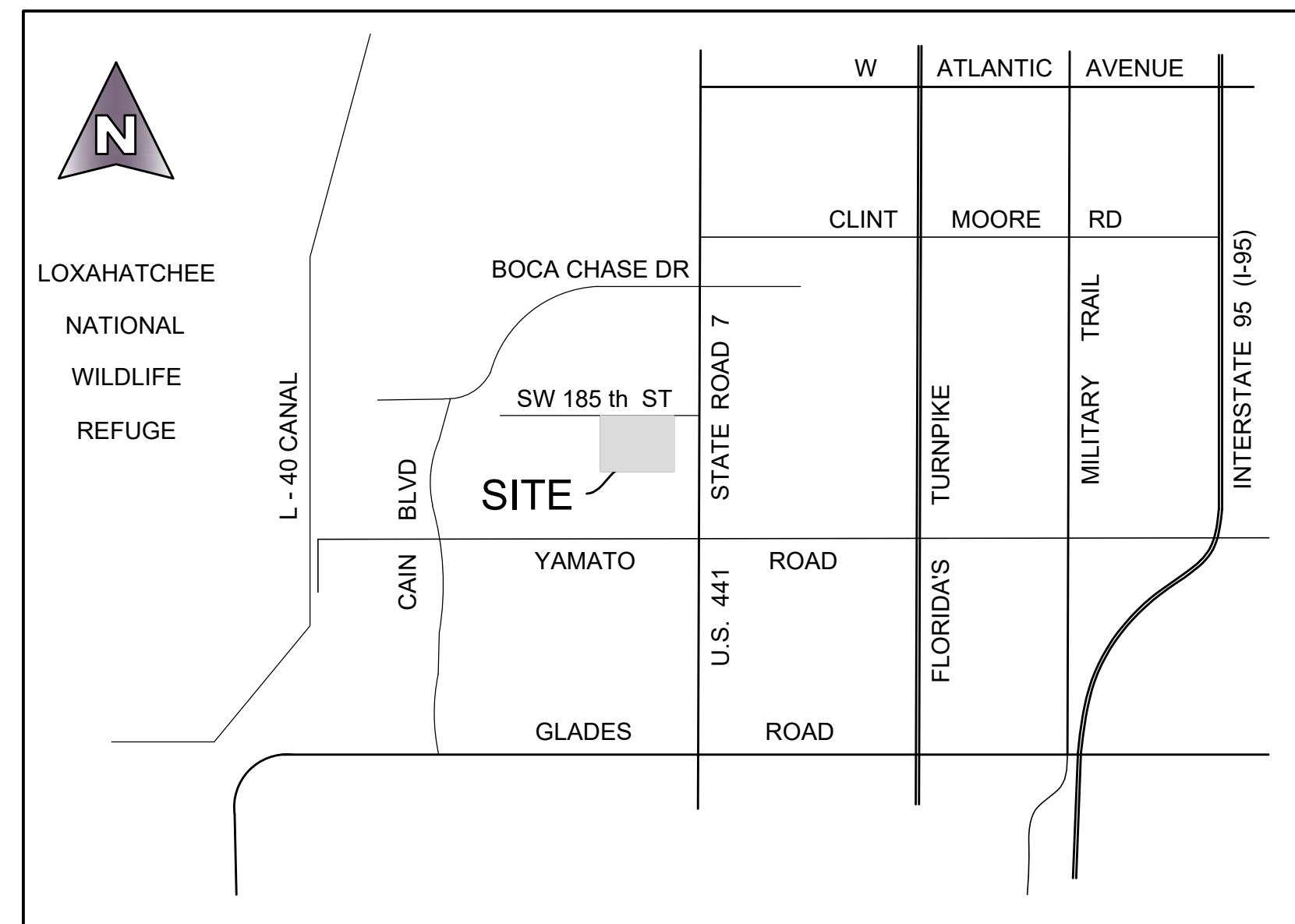


GENERAL CONTRACT CONDITIONS

- INCORPORATED AS A PART OF THE GENERAL SPECIFICATIONS AND REQUIREMENTS FOR THIS PROJECT ARE THE RELEVANT CRITERIA INCLUDED IN THE LATEST REVISION OF THE FOLLOWING ITEMS:
 FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.
 FLORIDA DEPARTMENT OF TRANSPORTATION DESIGN STANDARDS, LATEST EDITION.
 PALM BEACH COUNTY UNIFIED LAND DEVELOPMENT CODE
 PALM BEACH COUNTY WATER UTILITIES DEPT. MINIMUM ENGINEERING AND CONSTRUCTION STANDARDS.
 ALL CONDITIONS AND/OR REQUIREMENTS RELATED TO THE CONSTRUCTION ACTIVITIES AS SET IN THE SITE DEVELOPMENT PERMITS.
 THE CONTRACTOR IS RESPONSIBLE FOR REVIEWING THESE ITEMS. ANY COSTS ASSOCIATED WITH COMPLIANCE IS INCLUDED IN THE UNIT PRICES.
- AT NO ADDITIONAL COST TO THE OWNER, THE CONTRACTOR SHALL PROVIDE ACCESS AND ALLOW FOR COORDINATION SERVICES TO ACCOMMODATE UTILITIES, CONDUIT AND/OR SLEEVE CONSTRUCTION BY OTHERS. ANY UTILITIES, CONDUITS AND/OR SLEEVES INSTALLED BY OTHERS AND DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- IF REQUIRED BY OWNER OR GOVERNMENTAL AGENCY HAVING JURISDICTION OVER AFFECTED ROADWAYS, THE CONTRACTOR WILL PROVIDE, AS PART OF HIS BASE BID FOR PAVEMENT SYSTEMS, A MAINTENANCE OF TRAFFIC PLAN. ALSO INCLUDED WILL BE THE LABOR, EQUIPMENT AND MATERIALS REQUIRED TO IMPLEMENT THAT PLAN. ALL WORK MUST BE DONE IN ACCORDANCE WITH AGENCY REQUIREMENTS AND ANY REQUIRED PERMITS OR APPROVALS MUST BE APPLIED FOR AND OBTAINED BY THE CONTRACTOR.
- TESTING OF CONSTRUCTION MATERIALS AND/OR CONSTRUCTED FACILITIES WILL BE REQUIRED AS OUTLINED IN THE GOVERNING SPECIFICATIONS AS NECESSARY TO MEET THE REQUIREMENTS OF THE PERMITTING/APPROVING AGENCIES. ALL TESTING IS TO BE DONE BY A FLORIDA LICENSED TESTING LABORATORY AND THE COST OF THESE TESTS IS INCLUDED IN THE CONTRACTOR'S UNIT PRICES.
- FIELD REVIEWS OF CONSTRUCTED FACILITIES WILL BE REQUIRED DURING THE CONSTRUCTION PROCESS. THE CONTRACTOR IS TO NOTIFY THE ENGINEER A MINIMUM OF 24 HOURS PRIOR TO THE REQUESTED TIME FOR REVIEW OF THE COMPLETED ITEMS. CONTRACTOR TO PROVIDE ALL LABOR, EQUIPMENT AND MATERIALS NEEDED TO ACCOMMODATE THE FIELD REVIEW. THESE REVIEWS INCLUDE BUT ARE NOT LIMITED TO:
 PIPE AND STRUCTURE REVIEW
 PRESSURE AND LEAKAGE TESTING OF WATER AND FORCE MAINS
 SUB-GRADE REVIEW
 CURB REVIEWS
 BASE REVIEWS
 LAMPING AND TELESPECTION OF SANITARY SEWER SYSTEM
 PUMP DOWN AND LAMPING OF STORM DRAINAGE SYSTEM
 SEMI-FINAL AND FINAL REVIEWS
 FACILITIES MUST BE COMPLETED PRIOR TO SCHEDULING FIELD REVIEW. IF A FIELD REVIEW FAILS TO MEET THE AGENCY REQUIREMENTS AND AN ADDITIONAL REVIEW IS REQUIRED, THE CONTRACTOR WILL BE RESPONSIBLE TO PAY ANY FEES ASSOCIATED WITH THE ADDITIONAL REVIEW.
- NO SEPARATE PAYMENT SHALL BE PROVIDED TO THE CONTRACTOR FOR EARTHWORK ASSOCIATED WITH THIS CONTRACT. ALL COSTS ASSOCIATED WITH SITE PREPARATION NECESSARY TO EXECUTE THE WORK SET FORTH IN THE CONTRACT SHALL BE INCLUDED IN THE ITEMS PROVIDED FOR IN THE UNIT PRICE BID SCHEDULE. ANY EXCESS MATERIAL REMAINING UPON COMPLETION OF CONSTRUCTION SHALL BE REMOVED TO AN ACCEPTABLE LOCATION AT THE EXPENSE OF THE CONTRACTOR. AT THE OWNER'S OPTION HE MAY IDENTIFY A LOCATION FOR THIS MATERIAL TO BE STOCK PILED OR INSTRUCT THE CONTRACTOR TO REMOVE THE EXCESS TO A LEGAL DISPOSAL SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FINAL GRADING OF THE SITE TO WITHIN 0.2 ± FOOT OF ALL THE PROPOSED FINISHED GRADE ELEVATIONS THROUGHOUT THE PROJECT SITE AS DEPICTED ON THE PLANS PREPARED BY THE ENGINEER. ELEVATIONS OF CONSTRUCTED FACILITIES, IE ROADWAYS, DRAINAGE, ETC. ARE TO BE AS INDICATED ON THE PLANS.
- EXISTING UTILITIES, ROADWAY AND DRAINAGE FACILITIES ARE LOCATED AND IDENTIFIED BASED ON THE AVAILABLE INFORMATION. THE CONTRACTOR IS TO VERIFY THIS INFORMATION WHERE NECESSARY FOR PROPOSED CONSTRUCTION. ALL COSTS ASSOCIATED WITH VERIFICATION, PROTECTION OF EXISTING SYSTEMS OR CONNECTION TO THOSE ITEMS AS CALLED FOR ON THE PLANS IS INCLUDED IN THE UNIT PRICES.
- UNLESS OTHERWISE AGREED TO PRIOR TO CONSTRUCTION THE UNIT QUANTITIES ESTABLISHED BY THE PLANS WILL BE THE CONTRACT BASIS. UNIT PRICES SHALL INCLUDE THE PROVIDING OF ALL COSTS REQUIRED FOR THE COMPLETE CONSTRUCTION OF THE SPECIFIED UNIT OF WORK INCLUDING BUT NOT LIMITED TO: COST OF MATERIALS AND DELIVERY; COST OF INSTALLATION; LABOR, INCLUDING SOCIAL SECURITY, INSURANCE, AND OTHER REQUIRED FRINGE BENEFITS, WORKMAN'S COMPENSATION INSURANCE; BOND PREMIUMS; RENTAL OF EQUIPMENT AND MACHINERY; TAXES; TESTING SURVEYS AND OTHER INCIDENTAL EXPENSES; AND SUPERVISION.
- CONTRACTOR SHALL EMPLOY A REGISTERED SURVEYOR TO LAY OUT LINE, GRADES, STRUCTURES, LOT CORNERS, ETC. AS NECESSARY TO CONSTRUCT THE PROPOSED FACILITIES IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. BENCH MARKS SHALL BE ESTABLISHED BY A REGISTERED SURVEYOR. BENCH MARKS SHALL BE PERMANENT AND EASILY ACCESSIBLE AND MAINTAINED AND REPLACED IF DISTURBED OR DESTROYED. HORIZONTAL CONTROL SHALL SIMILARLY BE ESTABLISHED AND MAINTAINED.
- ANY UNSTABLE SOIL AND/OR SOIL CONTAINING ORGANIC MATERIAL ENCOUNTERED DURING CONSTRUCTION, INCLUDING BUT NOT LIMITED TO MUCK, SILT, SLUDGE AND MARL, SHALL BE REMOVED AND SHALL BE REPLACED BY MATERIAL ACCEPTABLE TO THE ENGINEER. NO ADDITIONAL PAYMENT SHALL BE PROVIDED FOR REMOVAL, REPLACEMENT, AND DISPOSAL OF SUCH UNSTABLE SOIL AND/OR ORGANIC CONTENT SOIL. THE REMOVAL, REPLACEMENT AND DISPOSAL OF SUCH UNSTABLE SOIL AND/OR ORGANIC CONTENT SOIL SHALL BE CONSIDERED TO BE PART OF THE CONTRACT PRICE AS PROVIDED IN THE UNIT PRICE BID SCHEDULE. IF ANY ROCK, HARDPAN, ETC. IS ENCOUNTERED DURING CONSTRUCTION OF ANY ITEMS, THE REMOVAL AND BACKFILL REQUIRED SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION OF THAT ITEM AND NO SEPARATE PAYMENT WILL BE MADE.
- THE CONTRACTOR SHALL VISIT THE SITE AND ACQUAINT HIMSELF WITH ALL EXISTING CONDITIONS. MAKE HIS OWN SUBSURFACE INVESTIGATION TO SATISFY HIMSELF AS TO THE SITE AND SUBSURFACE CONDITIONS, BUT SUCH SUBSURFACE INVESTIGATIONS SHALL BE PERFORMED ONLY UNDER TIME SCHEDULES AND ARRANGEMENTS APPROVED IN ADVANCE BY THE OWNER'S REPRESENTATIVE AND ENGINEER. THE EXISTING GRADES SHOWN ON THE DRAWINGS ARE APPROXIMATE ONLY AND NO REPRESENTATION IS MADE AS TO THEIR ACCURACY OR CONSISTENCY. THE CONTRACTOR SHALL VERIFY ALL EXISTING GRADES TO THE EXTENT NECESSARY TO INSURE COMPLETION OF THE JOB TO THE PROPOSED GRADES INDICATED ON THE DRAWINGS.
- THE CONTRACTOR SHALL PROVIDE ADEQUATE BARRIERS AND PROTECTION FOR THOSE EXISTING FACILITIES AND VEGETATION (NATURAL AND LANDSCAPING) THAT ARE TO REMAIN IN THE EXISTING CONDITIONS. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY COST ASSOCIATED WITH REPAIR OR REPLACEMENT OF THESE ITEMS IF THEY ARE DAMAGED OR DESTROYED BY THE CONTRACTOR (INCLUDING HIS WORKERS, SUBCONTRACTORS, LABORERS, SUPPLIERS, DELIVERY VEHICLES.)
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND COMPLYING WITH ANY DEWATERING PERMITS AND/OR APPROVALS NECESSARY FOR THE CONSTRUCTION OF THE PROPOSED FACILITIES/SYSTEMS.
- THE CONTRACTOR SHALL PROVIDE A MINIMUM OF SEVEN (7) COPIES FOR SHOP DRAWINGS, PRODUCT DATA, MATERIAL SPECIFICATION OF OTHER INFORMATION REGARDING CONSTRUCTION MATERIALS AND STRUCTURES AS REQUESTED BY THE OWNER, ENGINEER OR PERMITTING/APPROVAL AGENCY. SHOP DRAWINGS MUST BE NEWLY PREPARED INFORMATION, DRAWN TO ACCURATE SCALE. DO NOT REPRODUCE CONTRACT DOCUMENTS OR COPY STANDARD INFORMATION AS THE BASIS OF SHOP DRAWINGS. STANDARD INFORMATION PREPARED WITHOUT SPECIFIC REFERENCE TO THE PROJECT IS NOT CONSIDERED SHOP DRAWINGS. ALL COSTS ASSOCIATED WITH THIS ITEM IS INCLUDED IN THE UNIT PRICES.
- BY HIS SUBMITTAL OF ANY SHOP DRAWING OR CATALOG DATA, BEARING HIS APPROVAL STAMP, THE CONTRACTOR THEREBY REPRESENTS THAT HE HAS DETERMINED AND VERIFIED ALL FIELD MEASUREMENTS, FIELD CONSTRUCTION CRITERIA, MATERIALS, DIMENSIONS, CATALOG NUMBERS AND SIMILAR DATA OR WILL DO SO, AND THAT HE HAS CHECKED AND COORDINATED EACH ITEM WITH OTHER APPLICABLE APPROVED SHOP DRAWINGS AND THE CONTRACT REQUIREMENTS. SHOP DRAWINGS AND CATALOG DATA SUBMITTED WITHOUT THE CONTRACTOR'S STAMP OF APPROVAL WILL BE RETURNED TO THE CONTRACTOR WITHOUT REVIEW. APPROVAL OF SHOP DRAWINGS, SAMPLES, OR CATALOG DATA BY THE ENGINEER SHALL NOT AUTHORIZE ANY DEVIATION FROM THE REQUIREMENT OF THE CONTRACT DOCUMENTS NOR SHALL SUCH APPROVAL RELIEVE THE CONTRACTOR FROM RESPONSIBILITY FOR ERRORS OR OMISSIONS THEREIN.
- ANY PROPOSED SUBSTITUTE/EQUAL TO STRUCTURE REINFORCING STEEL AS SHOWN ON THE CONTRACT DOCUMENTS SHALL BE ACCOMPANIED BY CALCULATIONS SUBSTANTIATING EQUIVALENCY. SHOP DRAWINGS WITH SUBSTITUTE REINFORCEMENT NOT ACCOMPANIED BY CALCULATIONS WILL BE RETURNED TO THE CONTRACTOR WITHOUT REVIEW.

FLORENCE FULLER CHILD DEVELOPMENT CENTER



SEC 1 TWP 47, RNG 41E
LOCATION MAP
 N.T.S.

INDEX TO DRAWINGS

1	COVER SHEET AND INDEX SHEET
2	BOUNDARY AND TOPOGRAPHIC SURVEY
3	EROSION CONTROL PLAN
4	DEMOLITION PLAN
5	DIMENSION AND STRIPING PLAN
6	DEVELOPMENT PLAN
7-9	PAVING AND DRAINAGE DETAILS
10-13	WATER AND SANITARY DETAILS

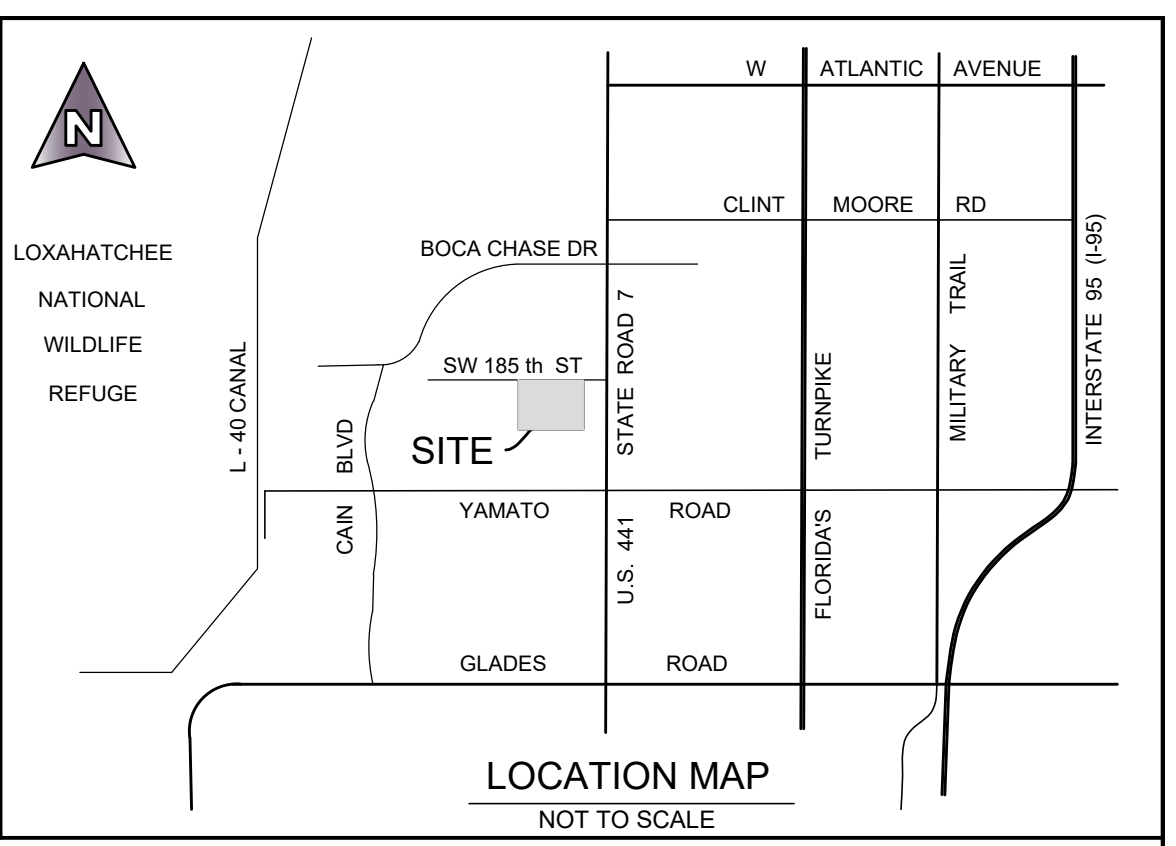
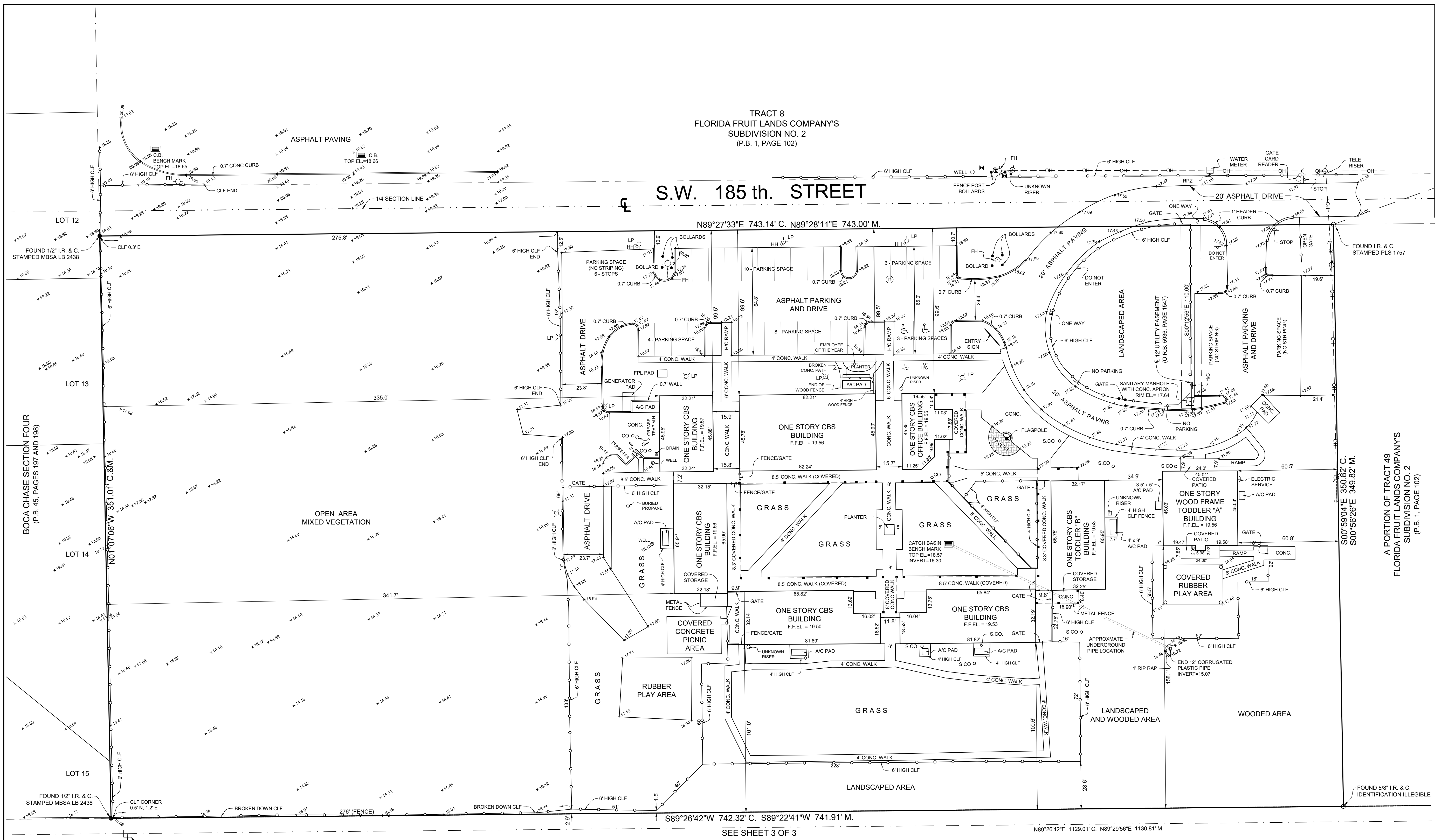
- THE CONTRACTOR UNDERSTANDS THAT THEY ARE REQUIRED TO PERFORM ANY AND ALL TESTS, INSPECTIONS, PROCEDURES INCLUDING ALL LABOR, MATERIALS, TIME AND EFFORT IN ORDER TO HAVE ALL WORK DESIGNATED AS FINAL BY ANY AGENCY OR MUNICIPALITY HAVING THE AUTHORITY AND HAVE ALL BONDS OR LETTERS OF CREDIT RELEASED TO OWNER, AND THAT SUCH TESTS, INSPECTIONS AND PROCEDURES ARE INCLUDED IN THE UNIT PRICES.
- CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH OWNER'S SURVEYOR FOR PURPOSES OF OBTAINING RECORD INFORMATION AS REQUIRED BY THE ENGINEER AND PALM BEACH COUNTY CONTRACTOR SHALL PROVIDE EQUIPMENT AND MANPOWER AS NECESSARY TO OBTAIN RECORD INFORMATION, INCLUDING BUT NOT LIMITED TO POTHOLES, PIPE/STRUCTURE CLEANING AND/OR PUMP-DOWN.
- LANDSCAPING SHALL NOT BE PERMITTED IN DRAINAGE/UTILITY EASEMENTS.

JORGE VALLE-PELLOT, P.E.
 FLORIDA LICENSE # 77039
 FOR MICHAEL B. SCHORAH
 AND ASSOCIATES, INC.

DEVELOPMENT PLANS

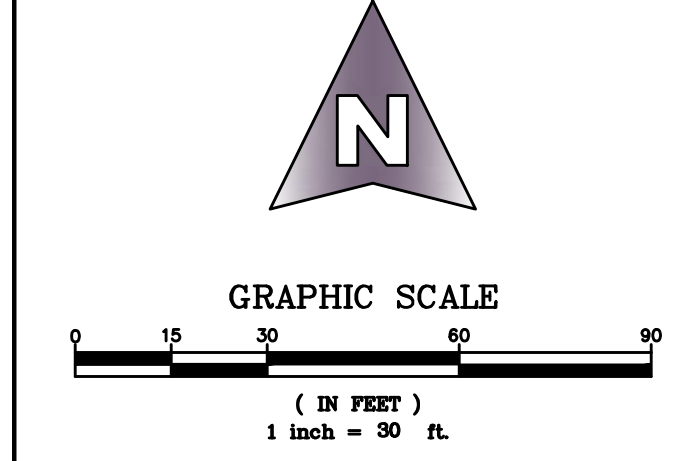
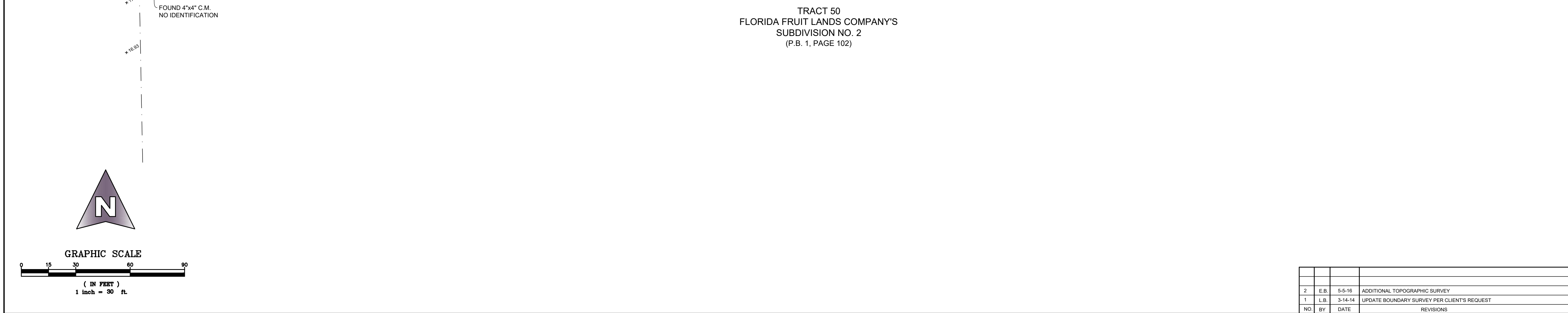
MICHAEL B. SCHORAH & ASSOCIATES, INC.
 ENGINEERS ♦ SURVEYORS ♦ DEVELOPMENT CONSULTANTS
 EB# 2438 TEL. (561) 968-0080 LB# 2438
 FAX. (561) 642-9726
 www.schorah.com
 1850 FOREST HILL BLVD., SUITE 206
 WEST PALM BEACH, FLORIDA 33406






LEGEND

- P.O.C. = POINT OF COMMENCEMENT
- P.O.B. = POINT OF BEGINNING
- C.M. = CONCRETE MONUMENT
- R/W = RIGHT-OF-WAY
- P.B. = PLAT BOOK
- O.R.B. = OFFICIAL RECORD BOOK
- PG(S) = PAGE(S)
- P.B.C.R. = PALM BEACH COUNTY RECORDS
- R = RADIUS
- A = CURVE CENTRAL ANGLE
- L = ARC LENGTH
- P = PLAT
- D. = DESCRIPTION
- C. = CALCULATED
- M. = MEASURED
- C.&M. = CALCULATED AND MEASURED
- P.&M. = PLAT AND MEASURED
- EL. = ELEVATION
- TRANS = TRANSFORMER
- LP = LIGHT POLE
- FH = FIRE HYDRANT
- W.M. = WATER METER
- C.B. = CATCH BASIN
- S.M.H. = STORM MANHOLE
- F.P.R.L. = FLORIDA POWER AND LIGHT COMPANY
- L.B. = LANDSCAPE BUFFER
- L.A.E. = LIMITED ACCESS EASEMENT
- U.E. = UTILITY EASEMENT
- M.T.E. = MASS TRANSIT EASEMENT
- BOL. = BOLLARD
- CONC. = CONCRETE
- CATV = CABLE TELEVISION SERVICE
- HH = HANDHOLE
- A/C = AIR CONDITIONER
- CLF = CHAIN LINK FENCE
- S.C.O. = SANITARY CLEANOUT
- FDC = FIRE DEPARTMENT CONNECTION
- C&G = CURB AND GUTTER
- € = CENTERLINE
- CO = CLEANOUT
- ⊕ = SANITARY SEWER MANHOLE
- ⊙ = STORM MANHOLE
- CTV = CABLE RISER
- = FOUND 4"x4" C.M. AS SHOWN
- = FOUND 1/2" I.R. & C. STAMPED "LB # 7733"
- = SET 1/2" I.R. & C. STAMPED "MBSA LB 2438"
- ⊙ = SOUTHERN BELL MANHOLE
- ⊕ = CATCH BASIN
- ⊕ = FIRE HYDRANT
- ⊕ = GATE VALVE
- ⊕ = GUY ANCHOR
- ⊕ = WOOD POWER POLE
- ⊕ = CONCRETE POWER POLE
- ⊕ = LIGHT POLE
- ⊕ = WATER METER
- = BARB WIRE FENCE
- = GUARD RAIL
- = OVERHEAD POWER LINE
- = CHAIN LINK FENCE
- = HANDICAP
- = ATT RISER
- = SIGN AS SHOWN
- = EXISTING ELEVATIONS (NAVD 88)

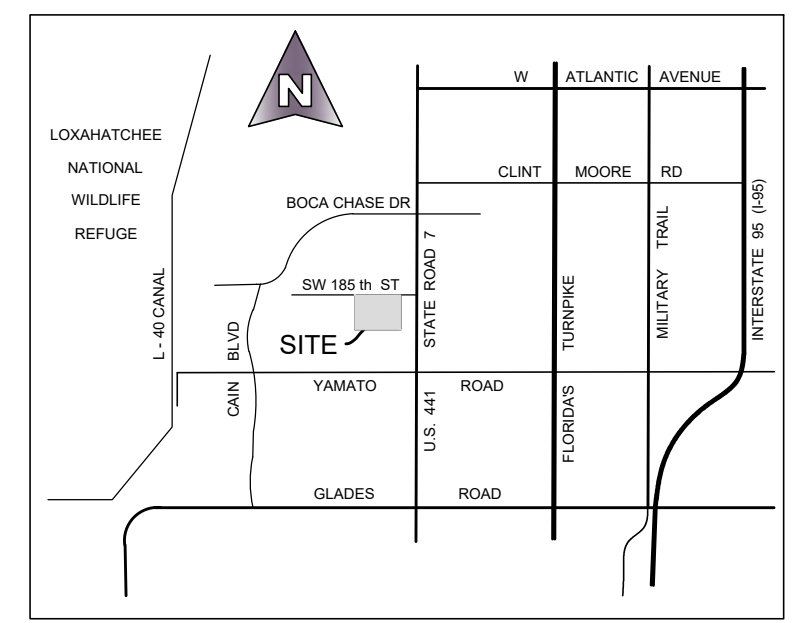
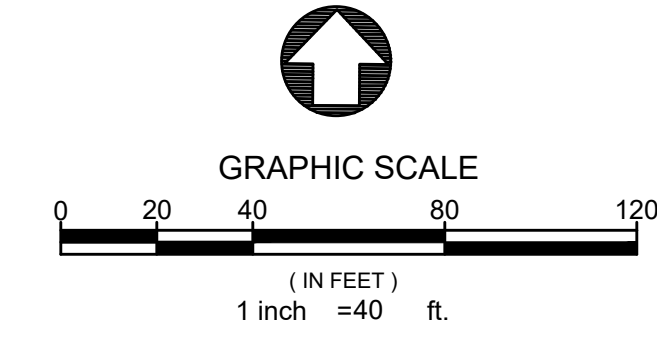
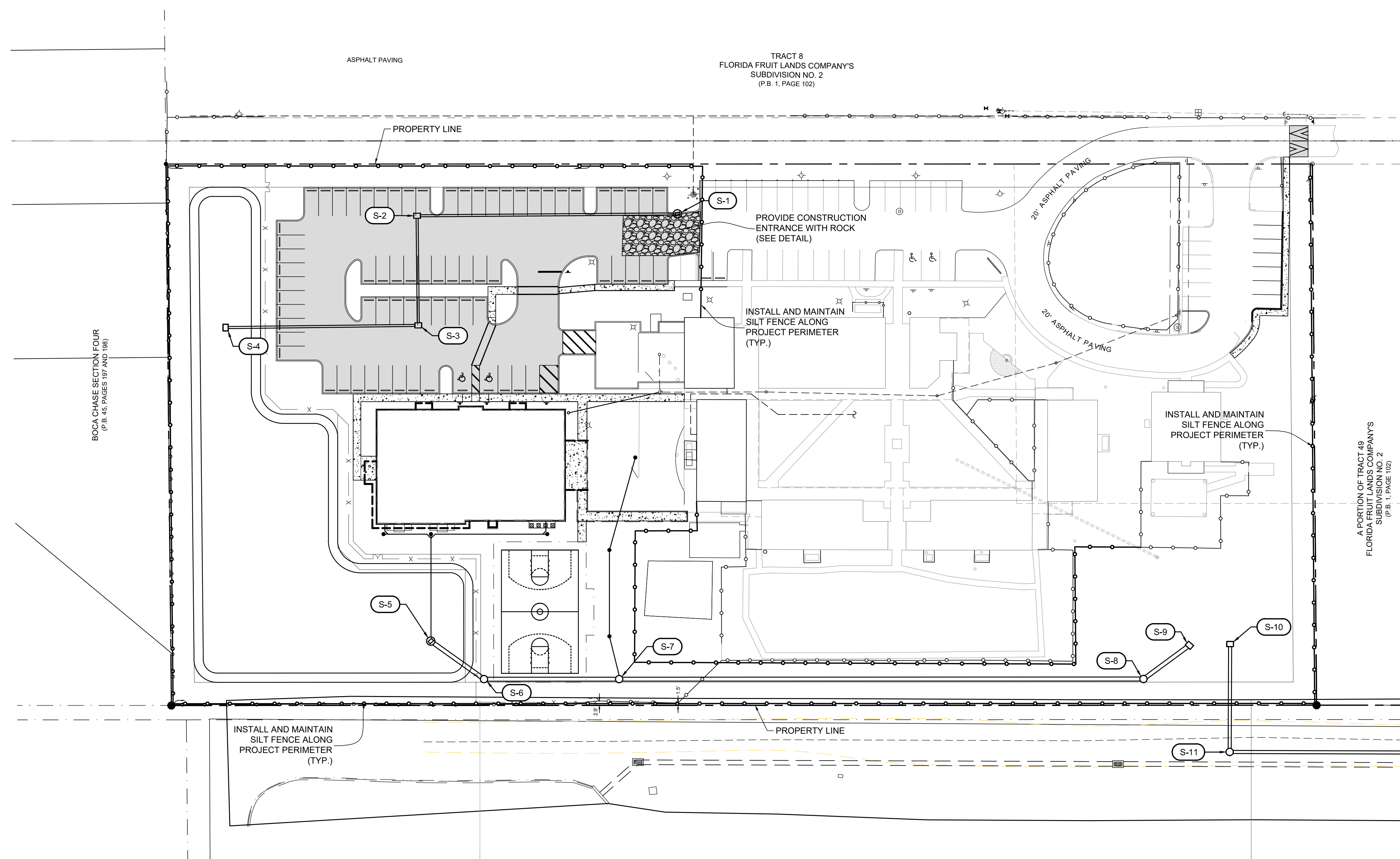


		MICHAEL B. SCHORAH & ASSOCIATES, INC. 1850 Forest Hill Boulevard, Suite 206 West Palm Beach, Florida 33406 Phone (561) 968-0080 Fax. (561) 642-9726	
		FIELD P.D./J.N. CHECKED J.T.G. DRAWN L.C.B.	FIELD BOOK PAGE CADD FILE 1544_BDY2NAVD
ALTA SURVEY OF FLORENCE FULLER CHILD DEVELOPMENT CENTER		LB # 2438 FILE NO. 1544	

NO.	BY	DATE	REVISIONS
2	E.B.	5-6-16	ADDITIONAL TOPOGRAPHIC SURVEY
1	L.B.	3-14-14	UPDATE BOUNDARY SURVEY PER CLIENT'S REQUEST

Date/Time: Tue, 11 Oct 2016 - 8:53am

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SEC 10, TWP 44, RNG 42E
LOCATION MAP
N.T.S.

EROSION CONTROL NOTES:

THE CONTRACTOR IS REQUIRED TO ADHERE TO THE REQUIREMENT OF THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) GENERIC PERMIT. THE CONTRACTOR SHALL INSTITUTE BEST MANAGEMENT PRACTICES (BMPs) TO ENSURE COMPLIANCE WITH THE NPDES PROGRAM AND TO MINIMIZE THE IMPACT TO PUBLIC STORMWATER FACILITIES.

PRIOR TO CONSTRUCTION, A SILT FENCE IN ACCORDANCE WITH FDOT INDEX 102 (LATEST VERSION) TYPE III SILT FENCE WILL BE ERCTED ALONG THE PERIMETER OF THE SITE.

PRIOR TO CONSTRUCTION, TURBIDITY BARRIERS IN ACCORDANCE WITH FDOT INDEX 103 (LATEST VERSION) WILL BE INSTALLED IN THE L-7 CANAL AT THE PROPOSED OUTFALL LOCATION.

ALL CATCH BASINS WITHIN THE NEW CONSTRUCTION AREA WILL HAVE THEIR INLETS PROTECTED BY THE INSTALLATION OF FILTER FABRIC INTO THE FRAME AND GRATE.

THIS SILT FENCING AND FILTER FABRIC WILL REMAIN IN PLACE DURING THE ENTIRE DURATION OF CONSTRUCTION.

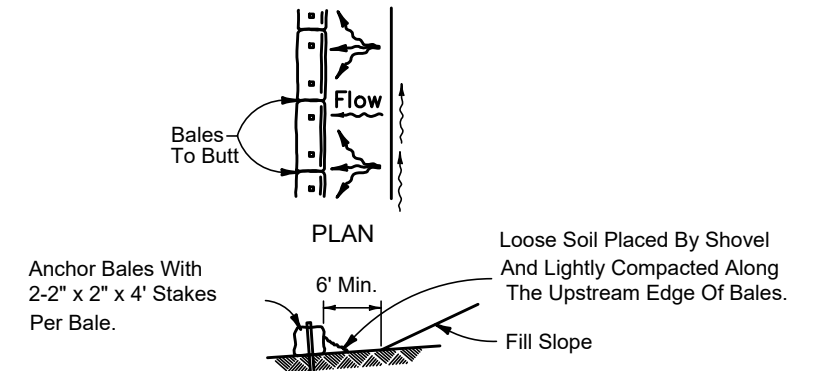
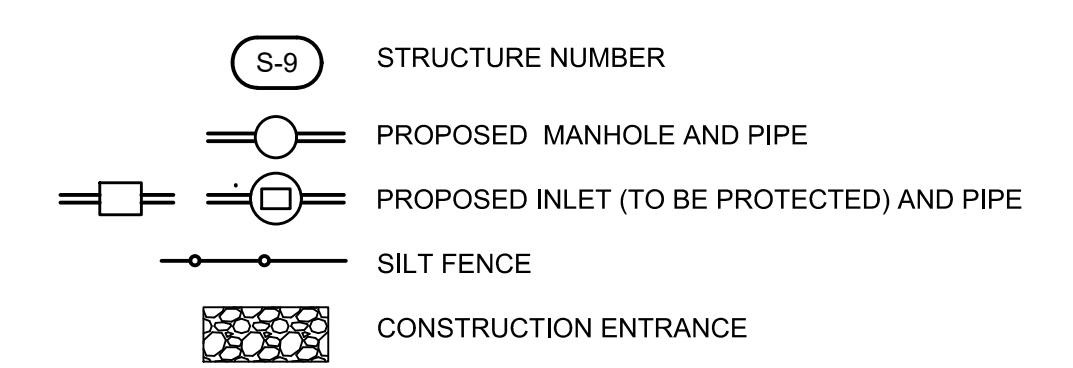
CONTRACTOR WILL BRACE ALL EXISTING LANDSCAPING TO REMAIN PRIOR TO BEGINNING ANY WORK AND WILL ENSURE THEIR STABILIZATION THROUGHOUT THE ENTIRE CONSTRUCTION PROCESS. EXISTING SOD DISTURBED BY CONSTRUCTION THAT IS NOT AFFECTED BY PROPOSED GRADING WILL BE RESTORED TO ITS ORIGINAL STATE UPON COMPLETION OF CONSTRUCTION. SODDED SLOPES STEEPER THAN 4 HORIZONTAL TO 1 VERTICAL WILL BE PEGGED.

ALL WASTE GENERATED FROM THE CONSTRUCTION SHALL BE DISCARDED IN ACCORDANCE WITH ALL APPLICABLE STATE, LOCAL, AND FEDERAL REGULATIONS. CONTRACTOR IS TO OBTAIN ALL APPLICABLE CODES AND BECOME FAMILIAR WITH STATE, LOCAL, AND FEDERAL REGULATIONS PRIOR TO BEGINNING CONSTRUCTION. REGULATIONS CAN BE FOUND, BUT NOT LIMITED TO, DEPARTMENT OF ENVIRONMENTAL RESOURCE MANAGEMENT AND DEPARTMENT OF ENVIRONMENTAL PROTECTION.

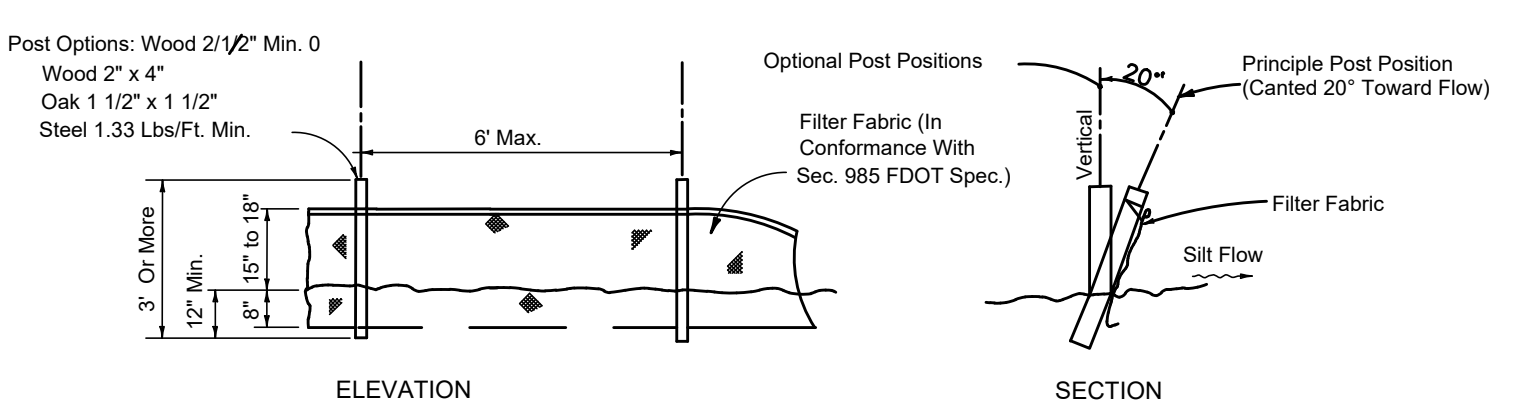
CONTRACTOR SHALL ENSURE THAT OFF-SITE VEHICLE TRACKING OF SEDIMENTS AND THE GENERATION OF DUST IS MINIMIZED.

AT ANY TIME DURING CONSTRUCTION THAT THE SILT FENCING OR TURBIDITY BARRIERS ARE DISTURBED, THE SILT FENCING OR TURBIDITY BARRIERS WILL BE RESTORED TO THEIR ORIGINAL STATE WITHIN 24 HOURS. AT NO TIME DURING CONSTRUCTION SHALL WORK BE PERFORMED WITHOUT THE INTEGRITY OF THE SILT FENCING OR TURBIDITY BARRIERS SECURED.

LEGEND

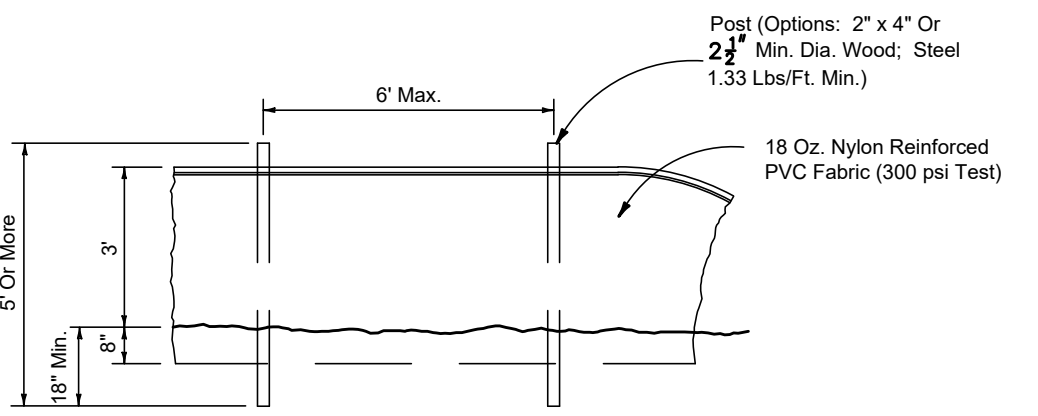


BARRIERS FOR FILL SLOPES
TO BE USED AT SELECTED SITES WHERE THE NATURAL GROUND SLOPES TOWARD THE TOE OF SLOPE

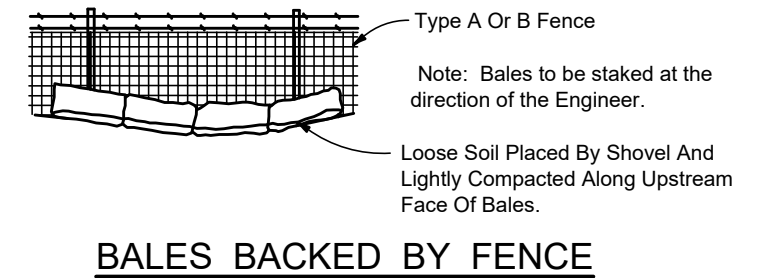


TYPE III SILT FENCE

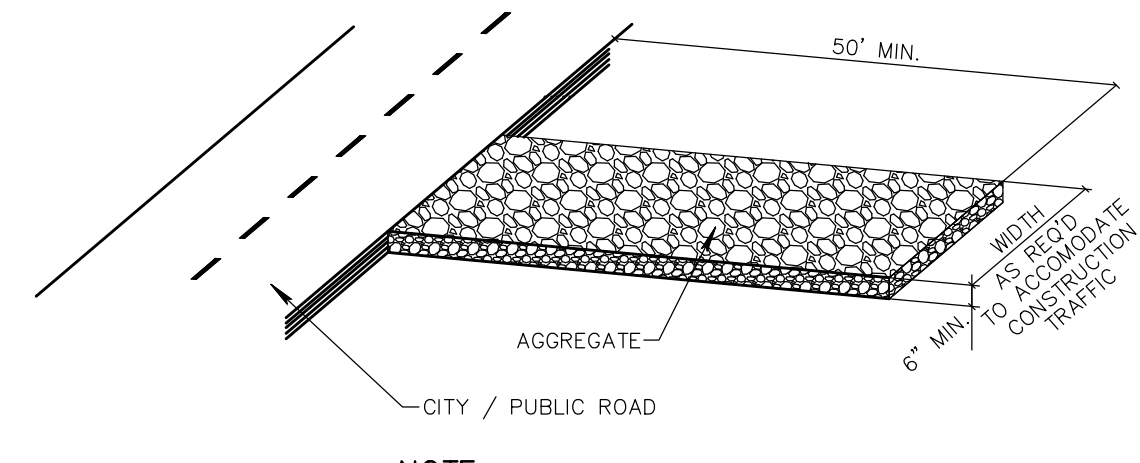
**TYPICAL INSTALLATION FOR
BALED HAY OR STRAW BARRIERS,
SILT FENCES, AND TURBIDITY BARRIERS**
REFERENCE D.O.T. INDEXES 102 AND 103
NO SCALE



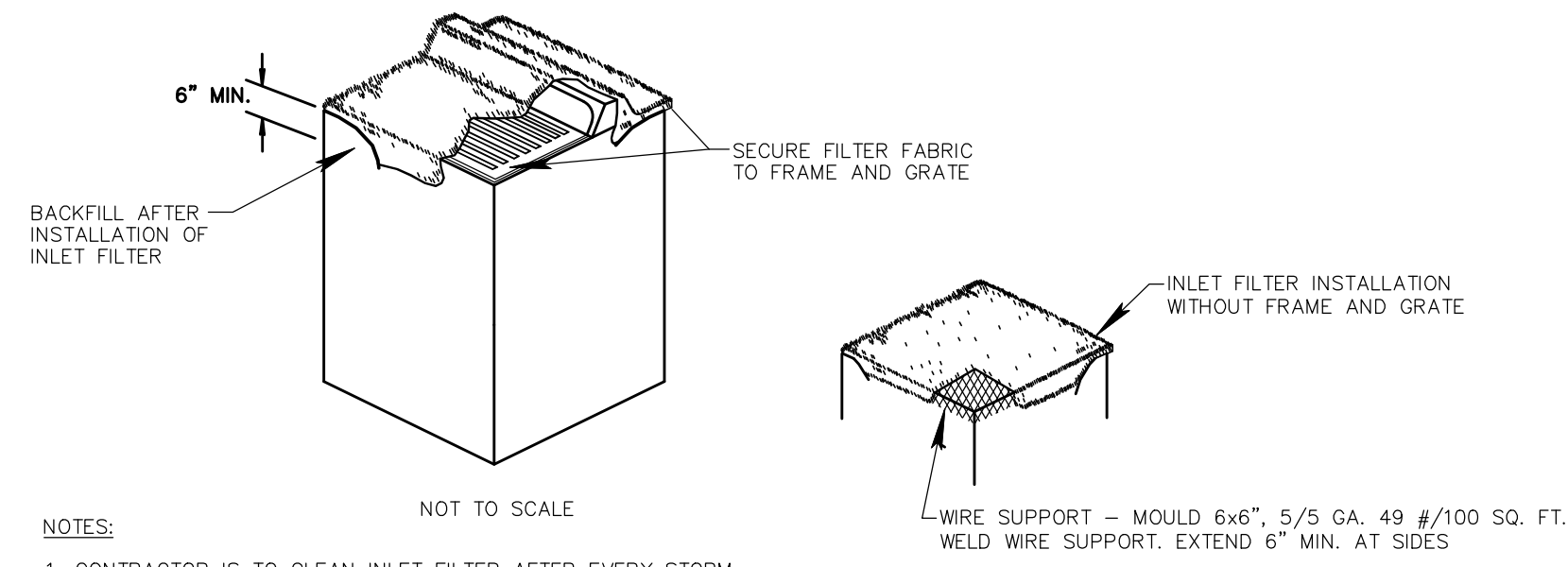
STAKED TURBIDITY BARRIER



BALES BACKED BY FENCE



STABILIZED CONSTRUCTION ENTRANCE DETAIL



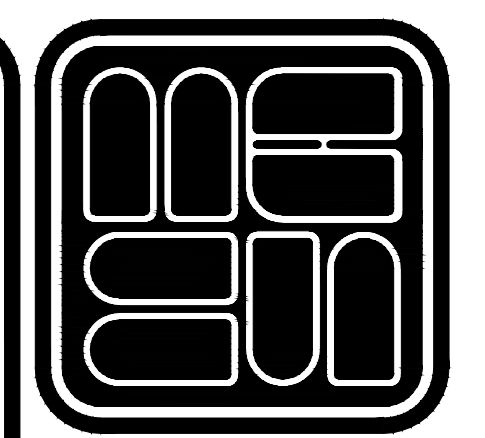
INLET FILTER/PROTECTION DETAIL

NOTES:

- CONTRACTOR IS TO CLEAN INLET FILTER AFTER EVERY STORM.
- CONTRACTOR TO REMOVE FABRIC JUST PRIOR TO PAVING.

A SEDIMENT TRAP WILL BE EXCAVATED BEHIND THE CURB AT THE INLET. THE BASIN SHALL BE AT LEAST 12 TO 14 INCHES IN DEPTH, APPROXIMATELY 36 INCHES IN WIDTH, AND APPROXIMATELY 7 TO 10 FEET IN LENGTH PARALLEL TO THE CURB.

STORM WATER WILL REACH THE SEDIMENT TRAP VIA CURB CUTS ADJACENT TO EACH SIDE OF THE INLET STRUCTURE. THESE OPENINGS SHALL BE AT LEAST 12 INCHES IN LENGTH. STORM WATER MAY ALSO REACH THE BASIN VIA OVERLAND FLOW LAND AREA BEHIND THE CURB. THE CURB CUTS SHALL BE REPAIRED WHEN THE SEDIMENT TRAP IS REMOVED.



**MICHAEL B. SCHORAH
& ASSOCIATES, INC.**
ENGINEERS • SURVEYORS • DEVELOPMENT CONSULTANTS
TEL: (661) 969-0080 LB# 2438
FAX: (661) 642-9726 www.schorah.com
1850 FOREST HILL BLVD., SUITE 206
WEST PALM BEACH, FLORIDA 33406

REVISIONS	DATE	REVISED BY	COMMENTS

DRAWN/CHECKED:	RAB / JIV
SCALE:	1" = 40'
DATE:	AUGUST 2016

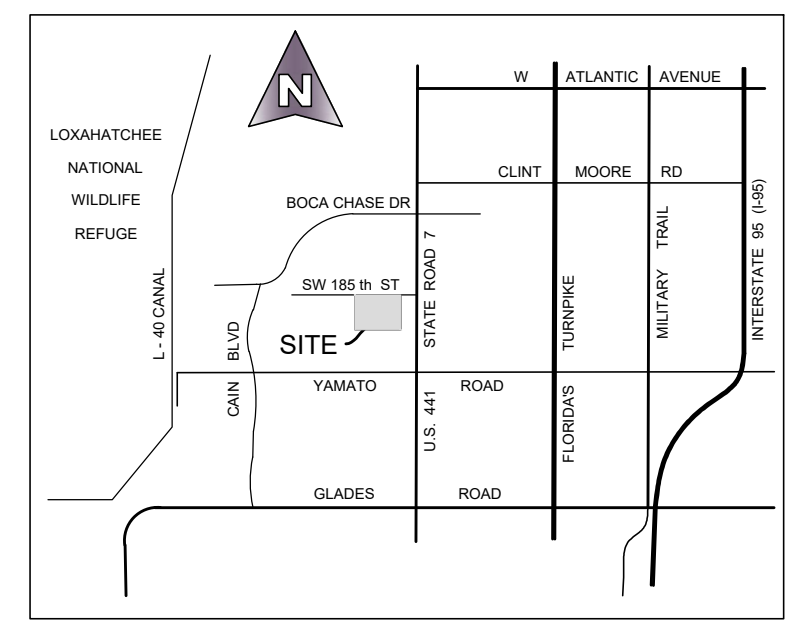
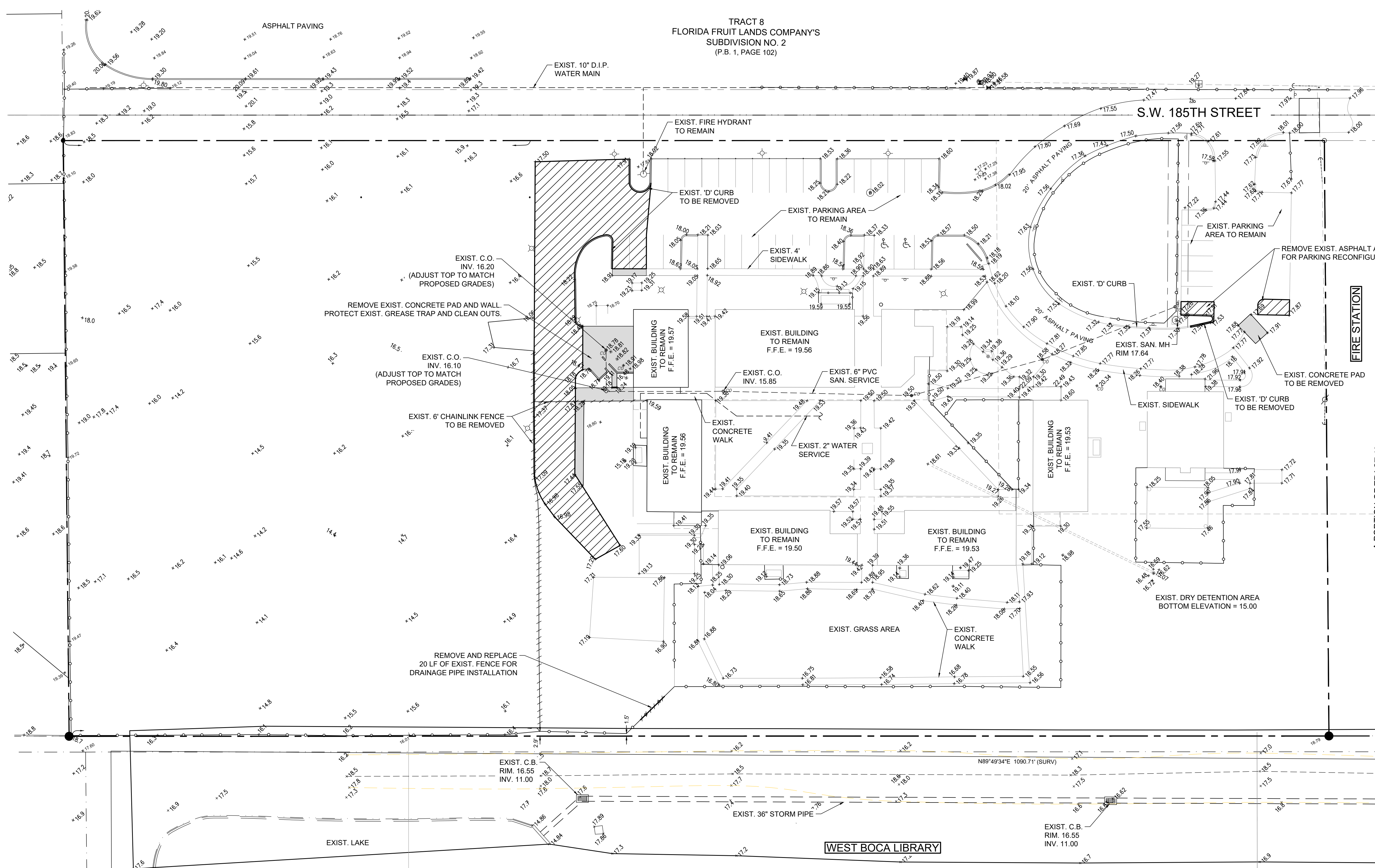
PROJECT:	FLORENCE FULLER CHILD DEVELOPMENT CENTER
DESCRIPTION:	EROSION CONTROL PLAN

JOB NO.	1544
SHEET NO.	3
OF 13	

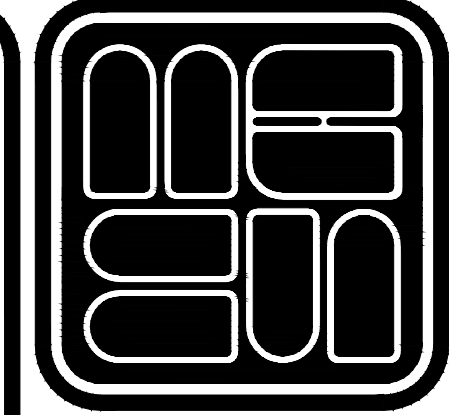
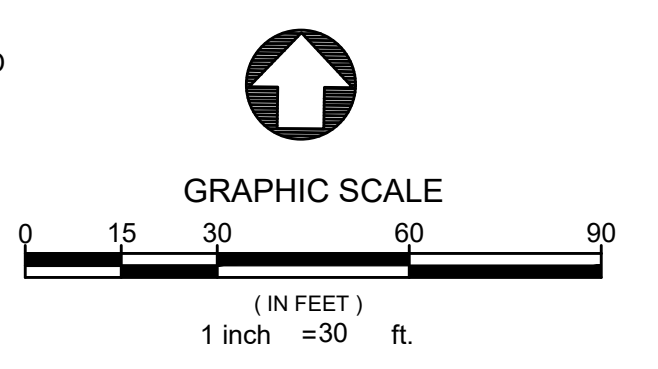
Date/Time : Tue, 11 Oct 2016 - 9:07am

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TRACT 8
FLORIDA FRUIT LANDS COMPANY'S
SUBDIVISION NO. 2
(P.B. 1, PAGE 102)



SEC 1, TWP 47, RNG 41E
LOCATION MAP
N.T.S.



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TEL (661) 969-0080
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www.schorah.com
EB# 2438
1850 FOREST HILL BLVD., SUITE 206
WEST PALM BEACH, FLORIDA 33406

REVISIONS

NO.	DESCRIPTION

DRAWN/CHECKED:	RAB / JIV
PROJECT:	FORGE VALLE LOT 2 E FLORIDA LICENSE # 77099 FOR MICHAEL B. SCHORAH AND ASSOCIATES, INC.
SCALE:	1" = 30'
DATE:	AUGUST 2016

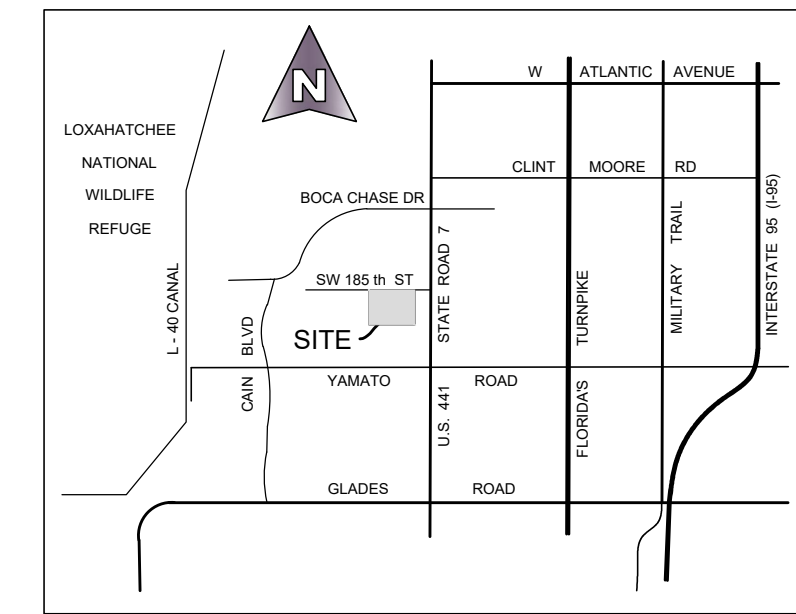
PROJECT:	FLORENCE FULLER CHILD DEVELOPMENT CENTER
DESCRIPTION:	DEMOLITION PLAN

JOB NO.	1544
SHEET NO.	4
OF 13	

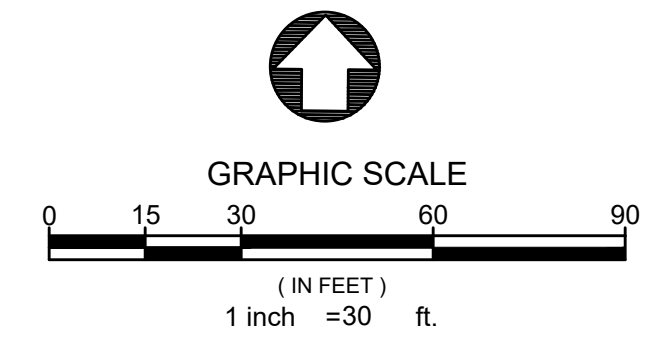
- LEGEND**
- EXIST. ASPHALT TO BE REMOVED
 - EXIST. CONCRETE SIDEWALK / PAD TO BE REMOVED

TRACT 8
FLORIDA FRUIT LANDS COMPANY'S
SUBDIVISION NO. 2
(P.B. 1, PAGE 102)

FOR HUMP PAVEMENT MARKING DETAIL
REFER TO PBC TYPICAL NO. T-P-13
SHEET 5 OF 20



SEC 1, TWP 47, Rng 41E
LOCATION MAP
N.T.S.

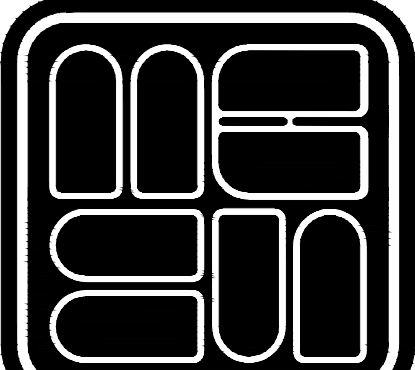
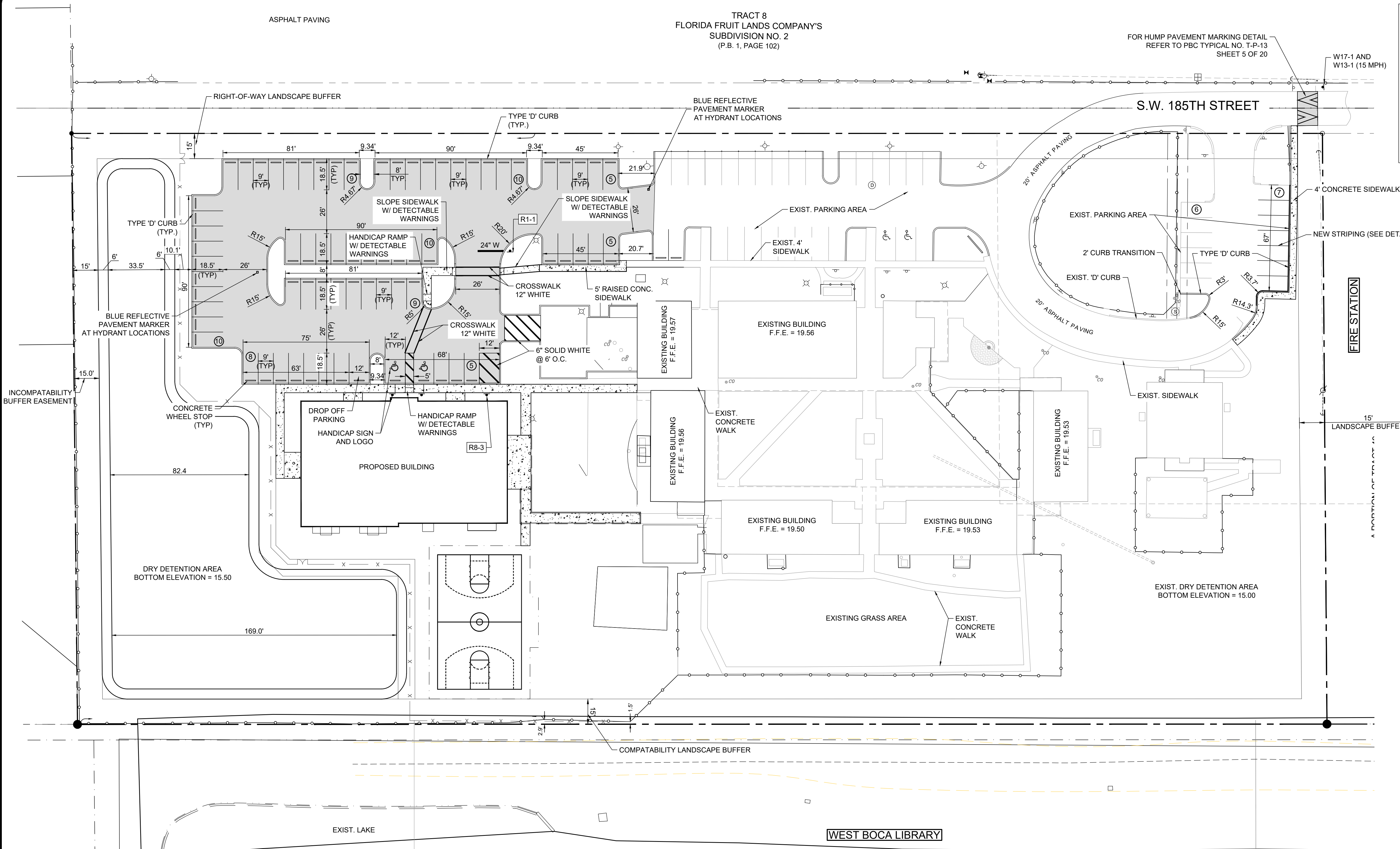


LEGEND

- HANDICAP PARKING
- SIGN LOCATION
- 10 PARKING SPACES
- STOP SIGN (30" X 30")
- NO PARKING SIGN
- SPEED BUMP SIGN
- 15 MPH SIGN
- HANDICAP
- 24" W 24" SOLID WHITE (STOP BAR)
- PALM BEACH COUNTY

NOTES:

1. ALL PROPOSED CURB RADII ARE 3.0' FEET (TO FACE OF CURB) UNLESS OTHERWISE NOTED.
2. PAVEMENT MARKINGS AND GEOMETRICS SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS AND PALM BEACH COUNTY TYPICAL T-P-13.



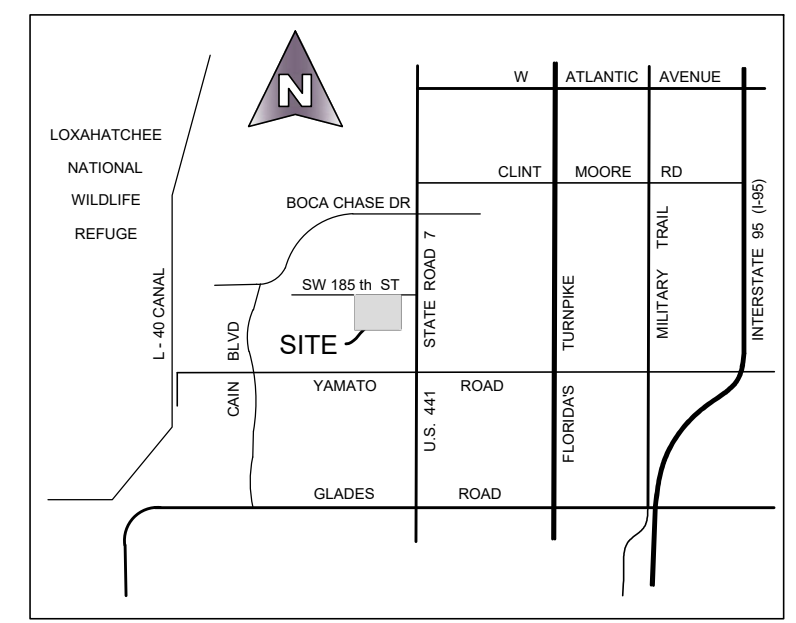
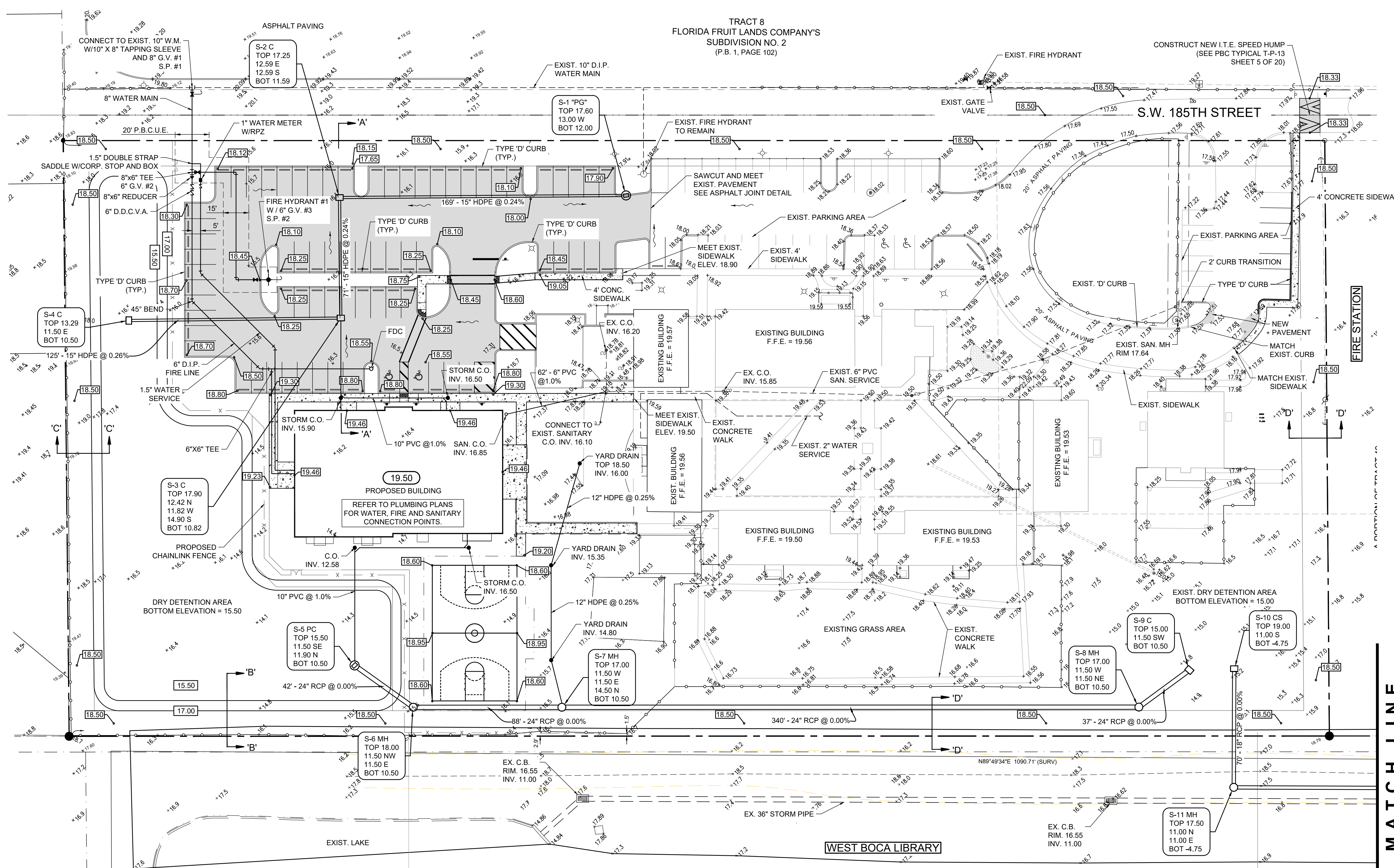
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EB# 2438
1850 FOREST HILL BLVD., SUITE 206
WEST PALM BEACH, FLORIDA 33406

NO.	REVISIONS

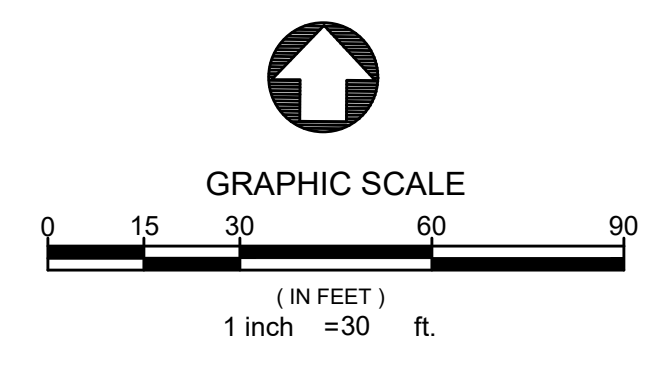
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SCALE:	1" = 30'
DATE:	AUGUST 2016
PROJECT:	FLORENCE FULLER CHILD DEVELOPMENT CENTER
DESCRIPTION:	DIMENSIONING AND SIGNAGE PLAN

JOB NO.	1544
SHEET NO.	5
OF 13	

PathName: P:\1544\CIVIL\CAD\1544 DEV.dwg Date/Time: Thu, 20 Oct 2016 - 5:45pm



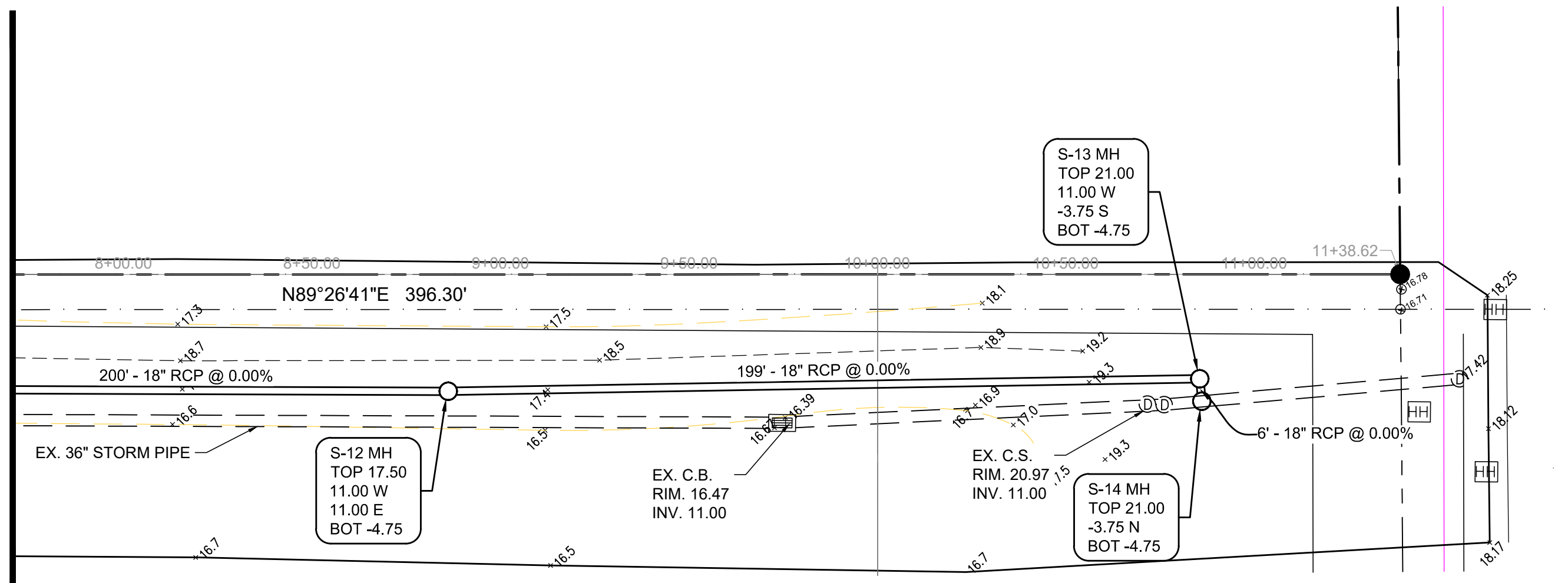
SEC 1, TWP 47, RNG 41E
LOCATION MAP
N.T.S.



LEGEND

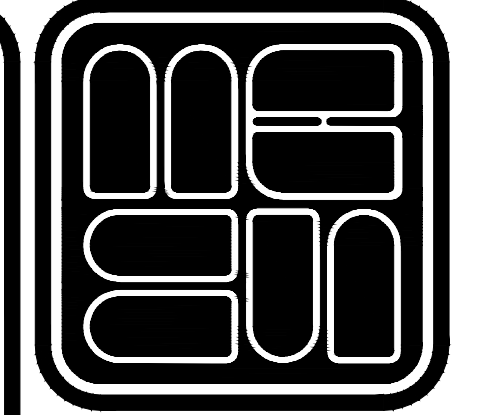
- S-1 C TOP 16.00 12.50 NW BOT 11.50
- PROPOSED MANHOLE AND PIPE
- PROPOSED INLET AND PIPE
- 19.5 x
- SLOPE DIRECTION
- 18.50
- 19.50
- CONCRETE PAVEMENT/SIDEWALK
- ASPHALT PAVEMENT
- FIRE HYDRANT ASSEMBLY
- C.O.
- D.D.C.V.A.
- S.P.
- FDC
- PBC

MATCH LINE



NOTES:

1. ELEVATIONS SHOWN HEREON ARE NAVD 88. CONVERSION TO NGVD 29: NGVD 29 = NAVD 88 + 1.5'
2. THE REQUIRED MINIMUM PERIMETER ELEVATION SHALL BE AT OR ABOVE THE 25 YEAR - 3 DAY STORM EL. 18.26 NAVD / 19.76 NGVD.
3. MINIMUM ROAD ELEVATION TO BE 17.25 NAVD (3 YR-1 DAY ELEVATION = 17.14)
4. MINIMUM FINISHED FLOOR ELEVATION = 19.50 NAVD (100YR-3DAY ELEVATION = 19.46 NAVD)
5. ALL WALKS SHALL HAVE A MAXIMUM 1.5% CROSS SLOPE.
6. ALL CONSTRUCTION AND RESTORATION WORK WITHIN PALM BEACH COUNTY RIGHT-OF-WAY SHALL COMPLY WITH THE LATEST EDITION OF THE FDOT DESIGN STANDARDS AND THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
7. PAVEMENT MARKINGS AND GEOMETRICS SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS AND PALM BEACH COUNTY TYPICAL T-P-13.



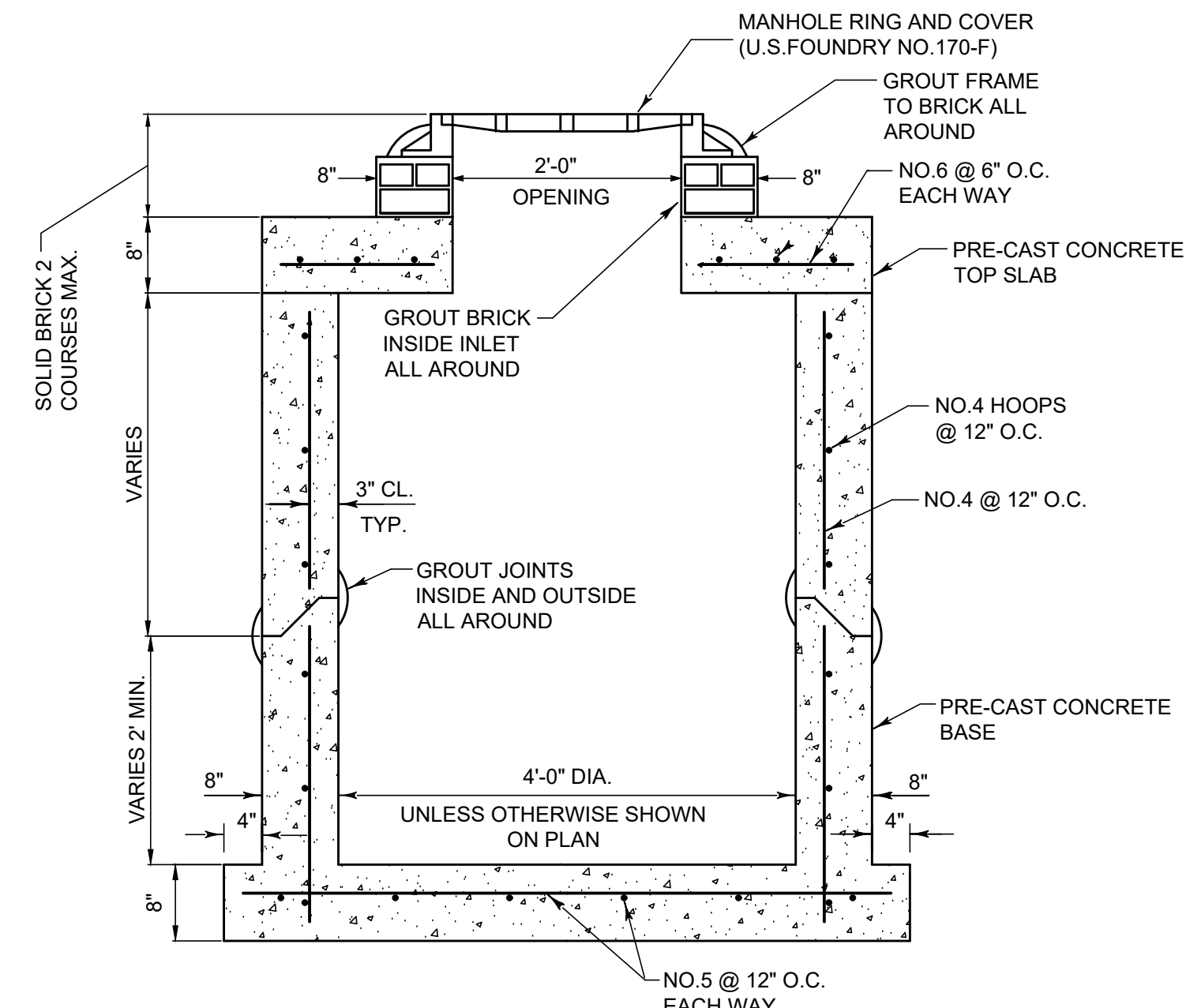
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NO.	DATE	DESCRIPTION

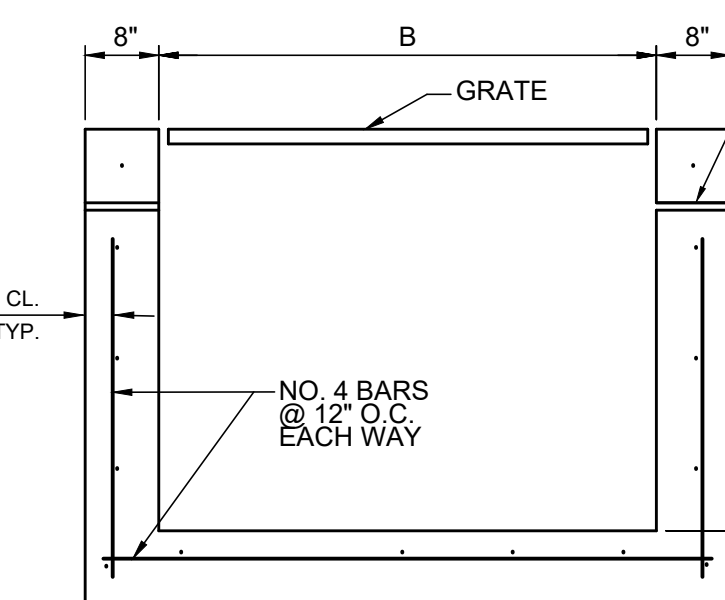
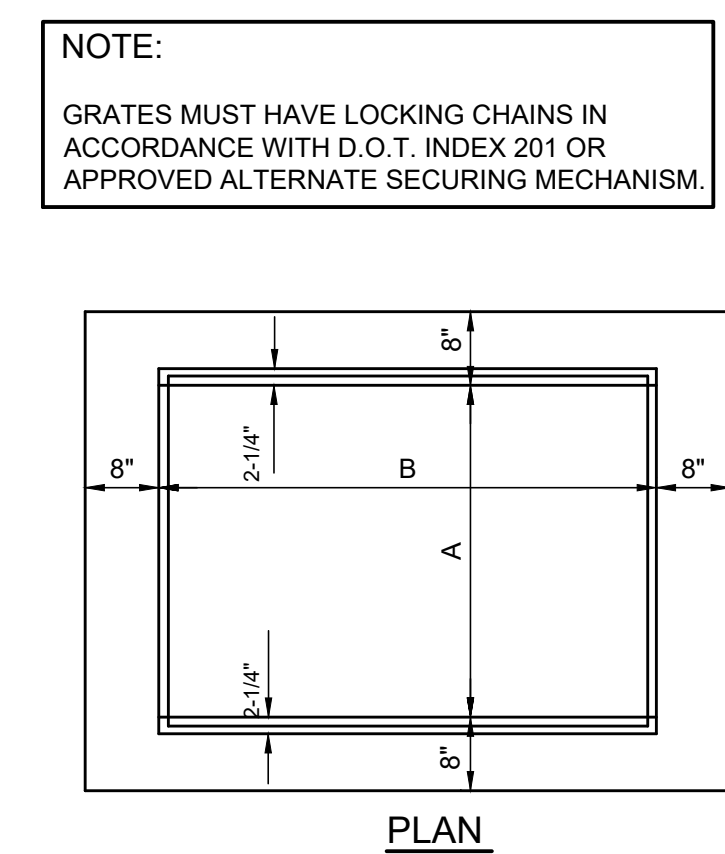
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SCALE:	1" = 30'
DATE:	AUGUST 2016

PROJECT:	FLORENCE FULLER CHILD DEVELOPMENT CENTER
DESCRIPTION:	DEVELOPMENT PLAN

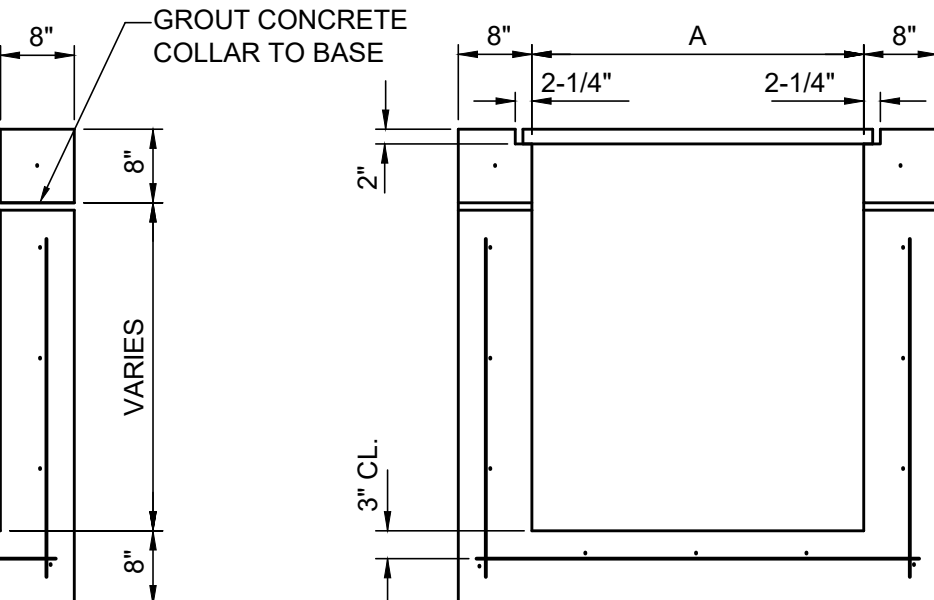
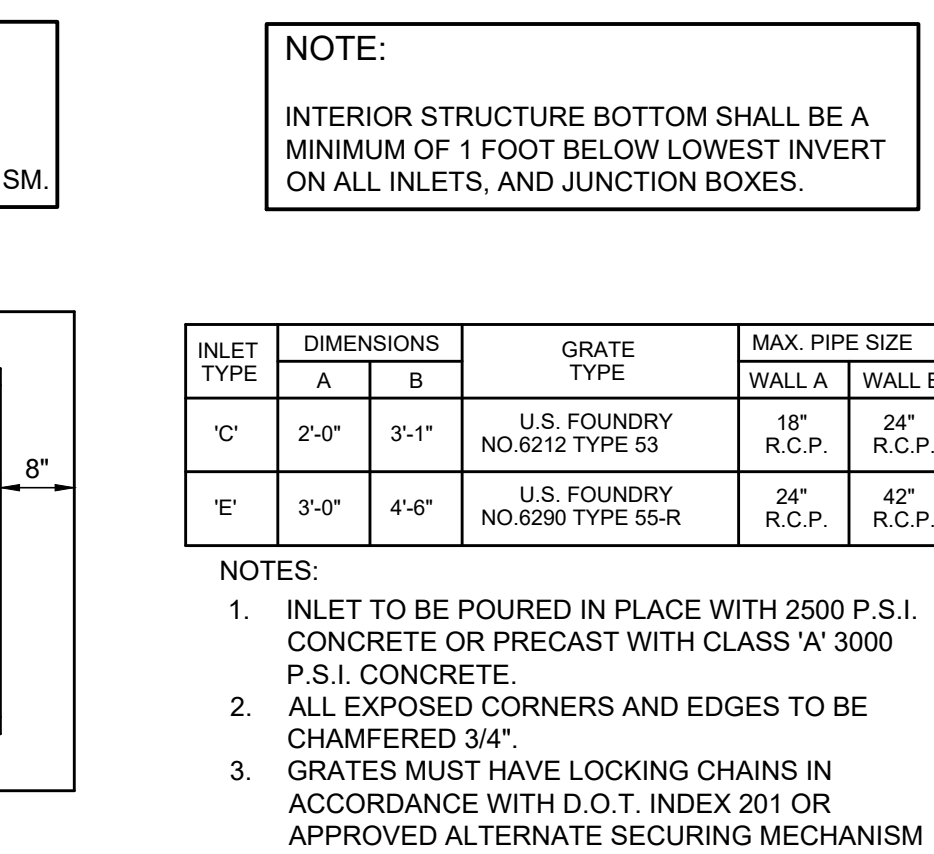
JOB NO.	1544
SHEET NO.	6
OF 13	



MANHOLE DETAIL
NO SCALE

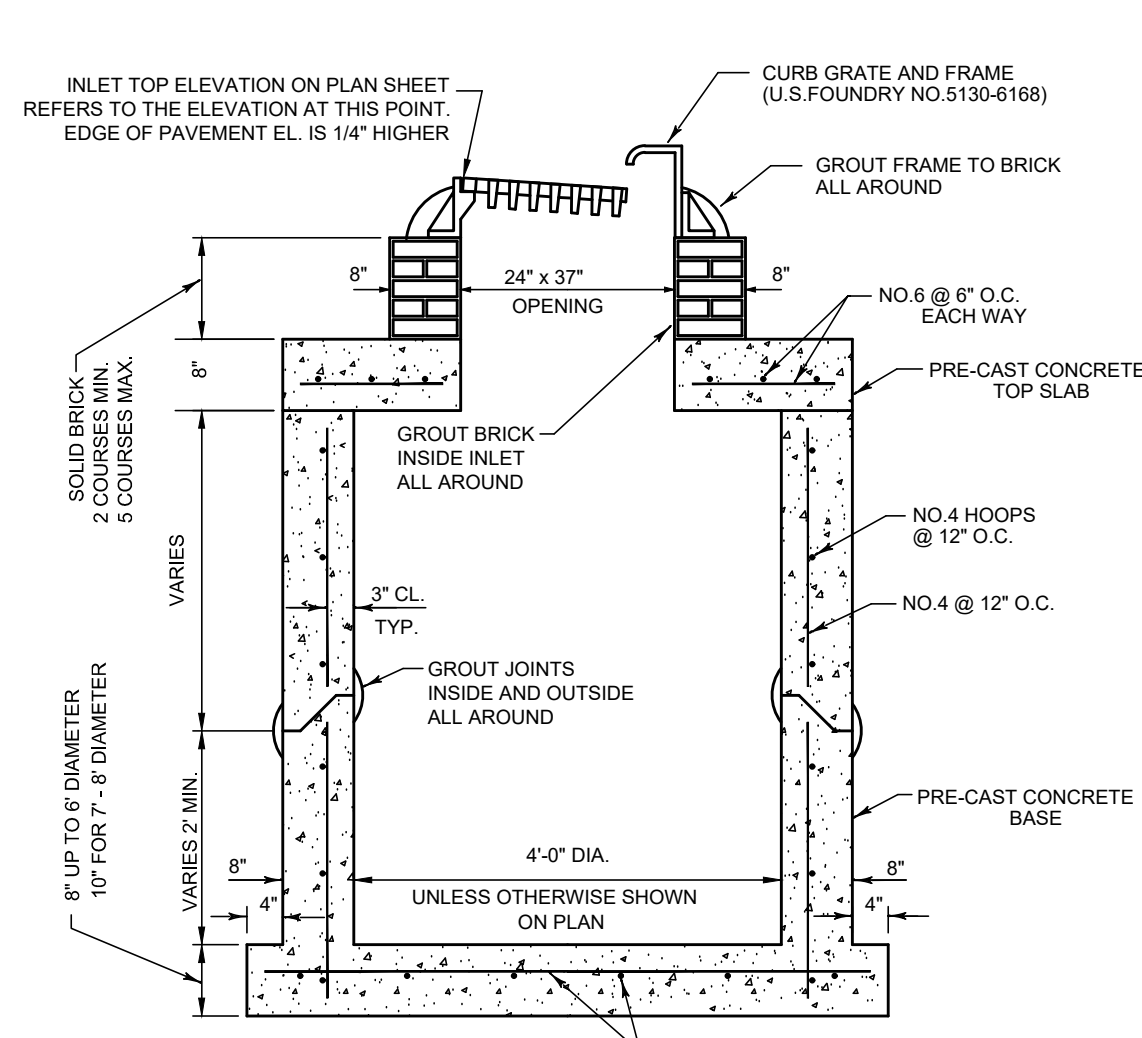


SECTION

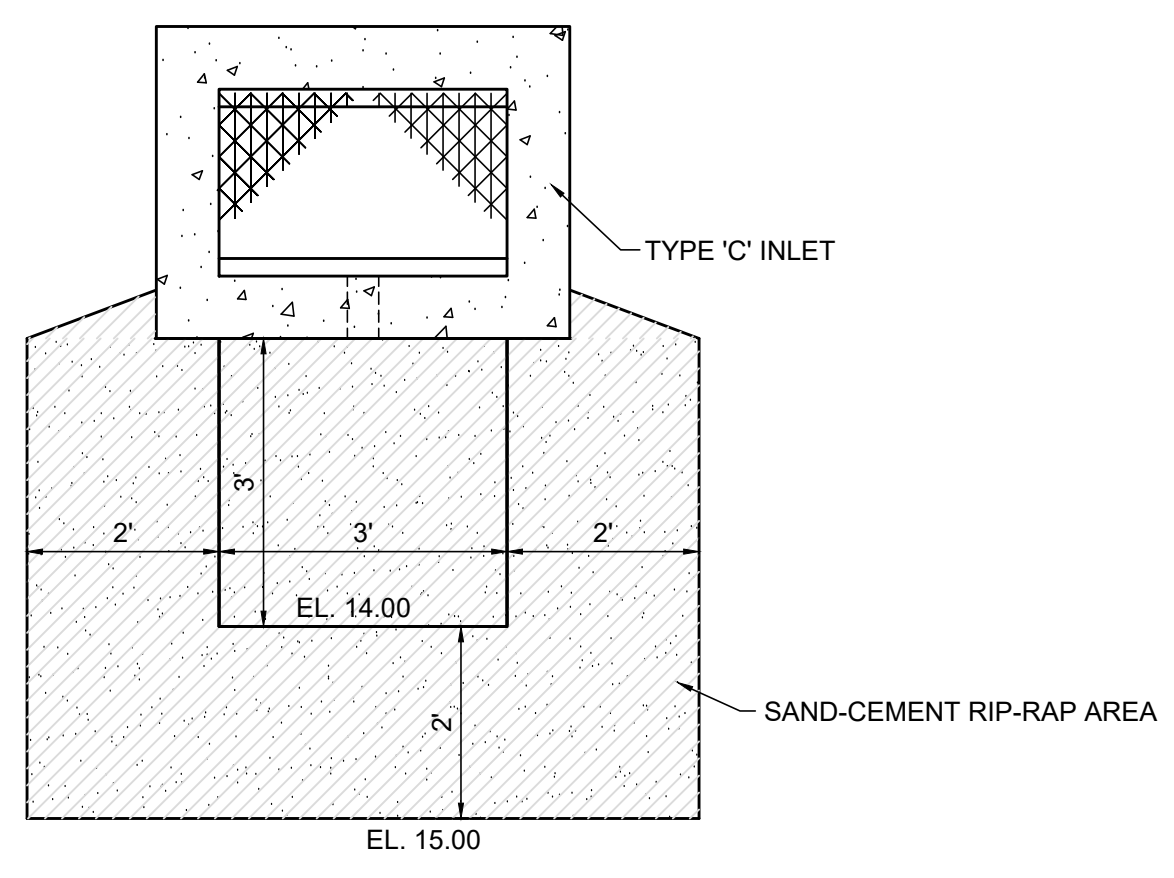


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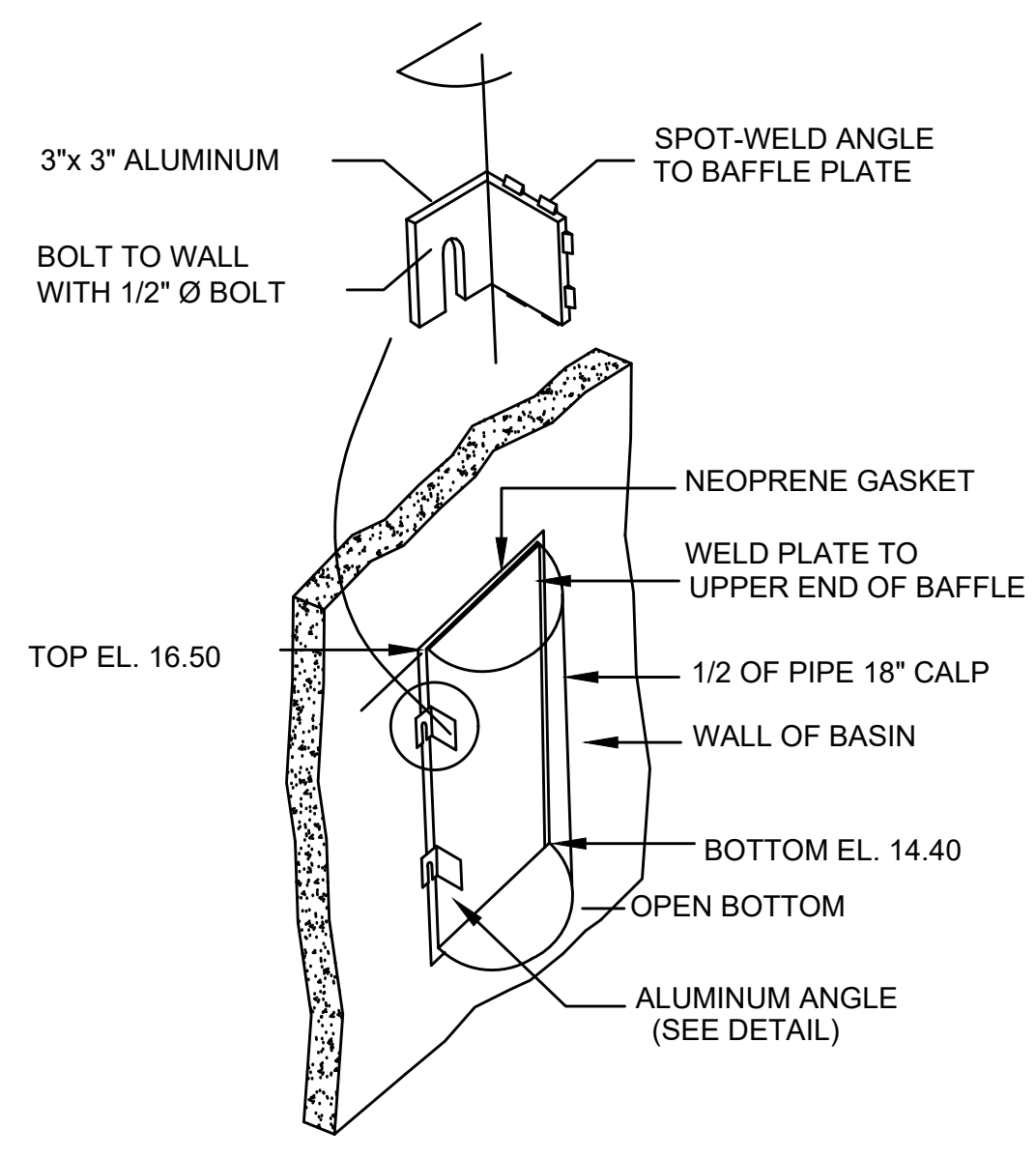
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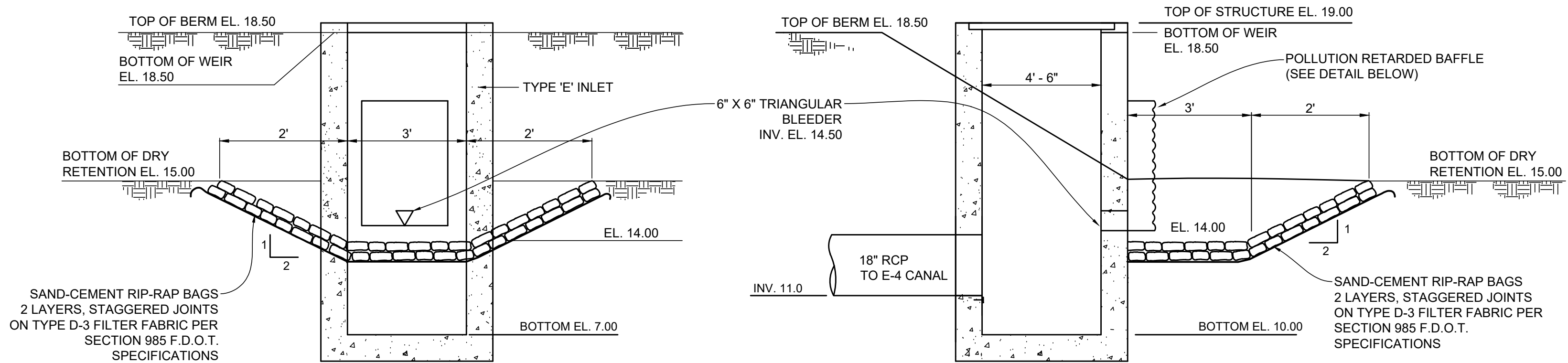
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PLAN



POLLUTION RETARDANT BAFFLE
NO SCALE



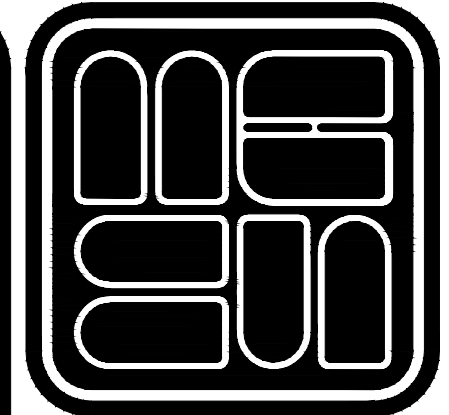
ELEVATION

SECTION

CONTROL STRUCTURE S-10 DETAIL
NO SCALE

SPECIFICATIONS - PAVING AND DRAINAGE

- CLEARING AND GRUBBING - WITHIN THE LIMITS OF CONSTRUCTION, ALL VEGETATION AND ROOT MATERIAL SHALL BE REMOVED.
- GUMBO - WHERE GUMBO OR OTHER PLASTIC CLAYS ARE ENCOUNTERED, THEY SHALL BE REMOVED WITHIN THE CONSTRUCTION AREA ONE FOOT BELOW THE SUBGRADE EXTENDING HORIZONTALLY TO THE OUTSIDE EDGE OF THE SHOULDER AREA.
- HARDPAN - IF HARDPAN IS ENCOUNTERED IN THE ROADSIDE SWALE, IT WILL BE REMOVED TO A WIDTH OF TWO FEET AT THE SWALE INVERT AND REPLACED WITH GRANULAR MATERIAL.
- MUCK AND PEAT - IF MUCK AND/OR PEAT ARE ENCOUNTERED IN THE ROAD RIGHTS OF WAY, THEY WILL BE REMOVED COMPLETELY FROM THE AREA OF CONSTRUCTION TO A WIDTH OF TEN FEET BEYOND THE EDGE OF PAVEMENT AND SHALL BE BACKFILLED WITH GRANULAR MATERIAL.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN THE EXACT LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES, WHETHER SHOWN OR NOT, PRIOR TO CONSTRUCTION. NOTIFY ALL UTILITIES INVOLVED PRIOR TO CONSTRUCTION.
- PIPE BACKFILL - REQUIREMENTS FOR PIPE BACKFILL CROSSING ROADS OR PARKING AREAS SHALL BE DEFINED IN THE FLORIDA D.O.T. SPECIFICATIONS, SECTION 125-8. PIPELINE BACKFILL SHALL BE PLACED IN SIX INCH LIFTS AND COMPACTED TO 98% OF THE STANDARD PROCTOR (A.A.S.H.T.O.) T-180 SPECIFICATIONS.
- SEQUENCE OF CONSTRUCTION - SEQUENCE OF CONSTRUCTION SHALL BE SUCH THAT ALL UNDERGROUND UTILITIES SHALL BE INSTALLED PRIOR TO ROADWAY CONSTRUCTION.
- INLETS - ALL INLETS SHALL BE THE TYPE DESIGNATED ON THE PLANS, AND SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE FLORIDA D.O.T. SPECIFICATIONS, SECTION 425.9.
- CORRUGATED ALUMINUM PIPE (C.A.L.P.) - THE PIPE SHALL CONFORM WITH THE REQUIREMENTS OF THE A.A.S.H.T.O. M-196, AND WITH THE FLORIDA D.O.T. SPECIFICATIONS, SECTION 945-1. ALUMINUM PIPE TO BE HELICAL (SPIRAL FLOW).
- REINFORCED CONCRETE PIPE - THE PIPE SHALL CONFORM WITH THE REQUIREMENTS OF CLASS III OF A.S.T.M. C-76 AND WITH THE FLORIDA D.O.T. SPECIFICATIONS, SECTION 941.
- SUBGRADE - ALL MUCK, STUMP ROOTS OR OTHER DELETERIOUS MATTER ENCOUNTERED IN THE PREPARATIONS OF THE SUBGRADE SHALL BE REMOVED COMPLETELY FROM THE CENTERLINE OF THE ROADWAY TO A WIDTH OF TEN FEET (10') BEYOND THE PROPOSED EDGE OF PAVEMENT. SUBGRADE SHALL BE COMPACTED TO 98% MAXIMUM DRY DENSITY A.A.S.H.T.O. T-180 LATEST REVISION SPECIFICATIONS. WHERE STABILIZATION IS REQUIRED IT SHALL MEET THE REQUIREMENTS OF THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, SECTION 160. DENSITY TESTS OF COMPACTED SUBGRADE SHALL BE TAKEN AT A MINIMUM OF 1 TEST FOR EVERY 400 FT OF LANE WITH TESTS ON ADJACENT LANES AT STAGGERED LOCATIONS.
- BASEROCK - BASEROCK MATERIAL SHALL CONFORM WITH THE REQUIREMENTS OF THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, SECTION 911 (LIMEROCK) OR SECTION 913A (SHELL-ROCK MATERIAL). BASE SHALL BE COMPACTED TO A DENSITY NO LESS THAN 98% OF MAXIMUM DRY DENSITY AS DETERMINED BY A.A.S.H.T.O. T-180, LATEST REVISION. CONTRACTOR SHALL NOTIFY ENGINEER IF BASEROCK SUBSTITUTE, OTHER THAN THE ABOVE-NOTED, IS PROPOSED. CONTRACTOR SHALL SUBMIT TEST REPORTS SHOWING GRADATION, CARBONATE CONTENT, PLASTICITY INDEX AND LIMEROCK BEARING RATIO OF PROPOSED SUBSTITUTE. TEST REPORTS SUBMITTED FOR SUBSTITUTE REVIEW SHALL NOT BE MORE THAN TWO (2) WEEKS OLD. ENGINEER MAY REQUIRE ADDITIONAL LAYER THICKNESS OF SUBSTITUTE. CONTRACTOR SHALL PROVIDE ADDITIONAL LAYER THICKNESS AT NO EXTRA COST TO OWNER.
- PRIME COAT - BITUMINOUS PRIME COAT SHALL CONFORM WITH THE REQUIREMENTS OF THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, SECTION 300, AND SHALL BE APPLIED AT THE RATE OF 0.10 GALLONS PER SQUARE YARD.
- TACK COAT - BITUMINOUS TACK COAT SHALL CONFORM WITH THE REQUIREMENTS OF THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, SECTION 300, AND SHALL BE APPLIED AT THE RATE OF 0.05 GALLONS PER SQUARE YARD.
- SURFACE COURSE - TYPE 'S' ASPHALTIC CONCRETE SURFACE COURSE SHALL CONFORM WITH THE REQUIREMENTS OF THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, SECTIONS 331 AND 332, THE MINIMUM COMPACTED THICKNESS TO BE AS NOTED ON PLANS.
- CONCRETE - ALL CONCRETE SHALL DEVELOP 2500 P.S.I. (MINIMUM) 28 DAY COMPRESSIVE STRENGTH OR GREATER WHERE NOTED ON PLANS. CLASS I CONCRETE SHALL CONFORM WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, SECTION 347. CLASS I CONCRETE USED AS PAVING SHALL DEVELOP 3000 P.S.I. (MINIMUM) 28 DAYS COMPRESSIVE STRENGTH. CONCRETE CURBING SHALL CONFORM WITH THE FLORIDA D.O.T. SPECIFICATIONS, SECTION 520.
- REGULATIONS - ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CURRENT PALM BEACH COUNTY UNIFIED LAND DEVELOPMENT CODE AND THE CURRENT FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AND ALL ADDENDA TO THE ABOVE REGULATIONS AND THEIR LATEST REVISIONS THERETO SHALL GOVERN.
- ELEVATIONS - ALL ELEVATIONS REFER TO N.A.V.D., 1988.
- AS-BUILTS - THE CONTRACTOR SHALL COMPLETE "AS-BUILT" INFORMATION RELATIVE TO LOCATION OF THE INLETS AND MANHOLES AS WELL AS INVERTS AND RIM ELEVATIONS.
- GUARANTY - ALL MATERIAL AND EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR UNDER THIS CONTRACT SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE THEREOF, AGAINST DEFECTIVE MATERIALS, DESIGN AND WORKMANSHIP. UPON RECEIPT OF NOTICE FROM THE OWNER OF FAILURE OF ANY PART OF THE GUARANTEED EQUIPMENT OR MATERIALS, DURING THE GUARANTY PERIOD, THE AFFECTED PART, PARTS, OR MATERIALS SHALL BE REPLACED PROMPTLY WITH NEW PARTS OR MATERIALS BY THE CONTRACTOR, AT NO EXPENSE TO THE OWNER. IN THE EVENT THE CONTRACTOR FAILS TO MAKE THE NECESSARY REPLACEMENT OR REPAIRS WITHIN SEVEN DAYS AFTER NOTIFICATION BY THE OWNER, THE OWNER MAY ACCOMPLISH THE WORK AT THE EXPENSE OF THE CONTRACTOR.
- WHERE CONNECTIONS TO AN EXISTING DRAINAGE SYSTEM ARE PROPOSED, SAID EXISTING DRAINAGE STRUCTURES AND LINES SHALL BE CLEANED OF ALL SILT AND OTHER DEBRIS PRIOR TO SAID CONNECTIONS BEING MADE, AND WHERE THE EXISTING DRAINAGE SYSTEM INCLUDES DITCHES, SAID DITCHES SHALL BE CLEANED AND REWORKED, AS NECESSARY, TO RESTORE THEM TO AN APPROVED DESIGN SECTION.
- ALL MARKINGS SHALL CONFORM TO THE REQUIREMENTS OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AND PALM BEACH COUNTY, FLORIDA ENGINEERING DEPARTMENT DRAWING T-P-13.
- WHERE A MODIFIED OR STANDARD PROCTOR IS REQUIRED ON MATERIAL THAT REQUIRES COMPACTION TO A SPECIFIED LIMIT, A PROCTOR MUST BE DONE FOR EACH TYPE OR CLASSIFICATION OF MATERIAL TO BE UTILIZED.
- ALL DRAINAGE SYSTEMS SHALL BE PUMPED DRY AND LAMPED AS A REQUIREMENT OF THE FINAL DRAINAGE INSPECTION.
- NO PAVEMENT BRICK IS TO BE USED WITHIN PALM BEACH COUNTY RIGHT-OF-WAY.



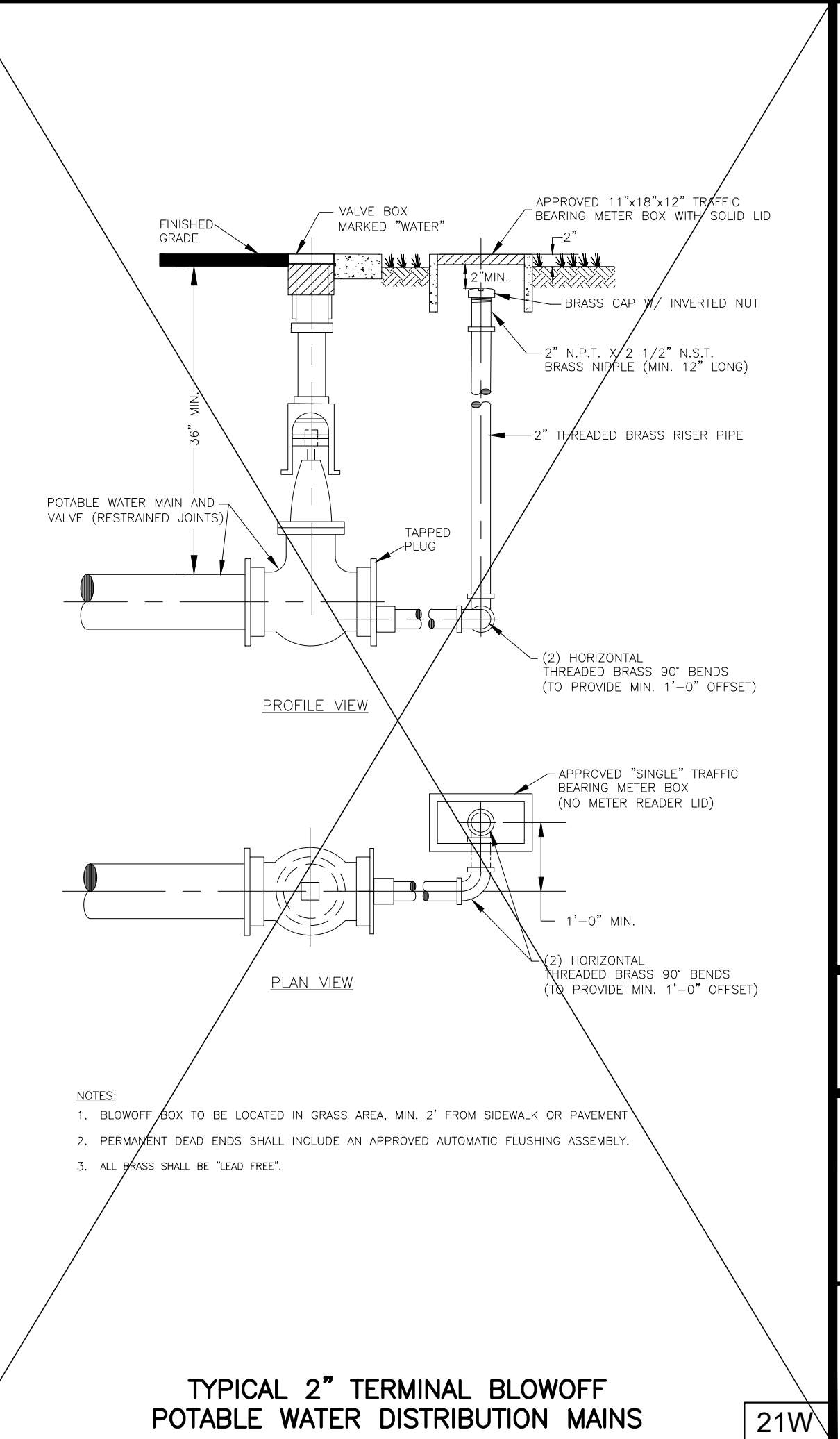
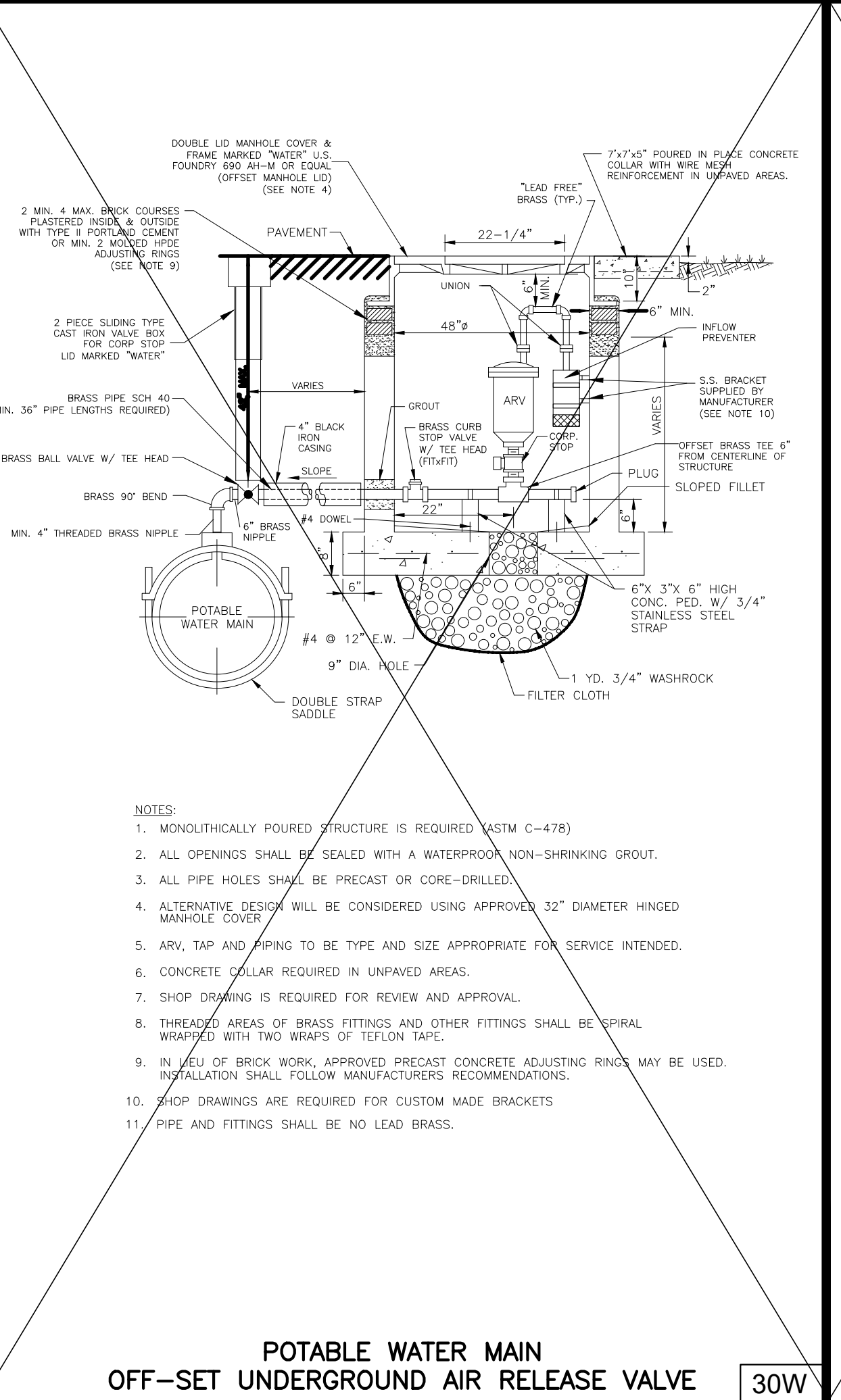
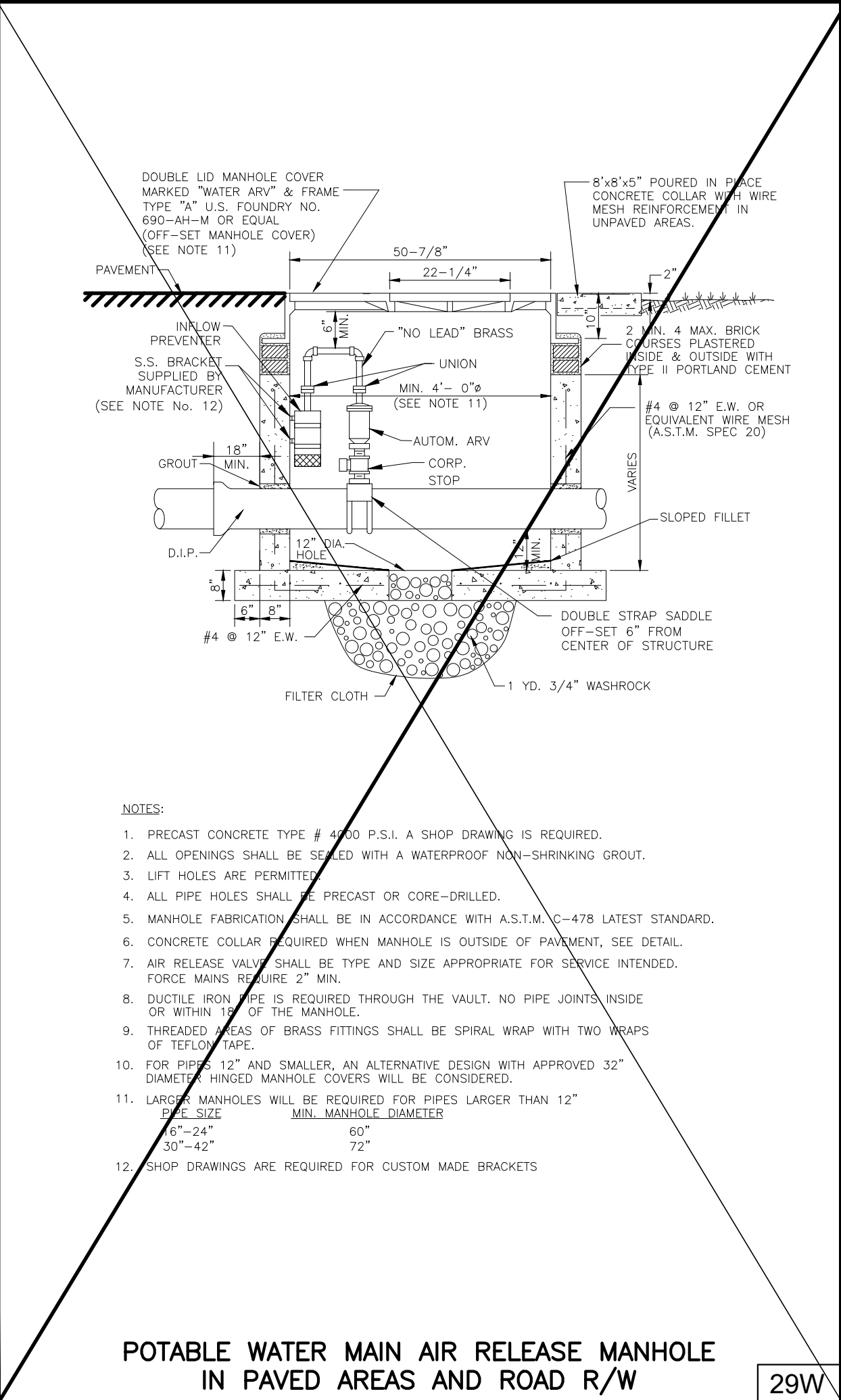
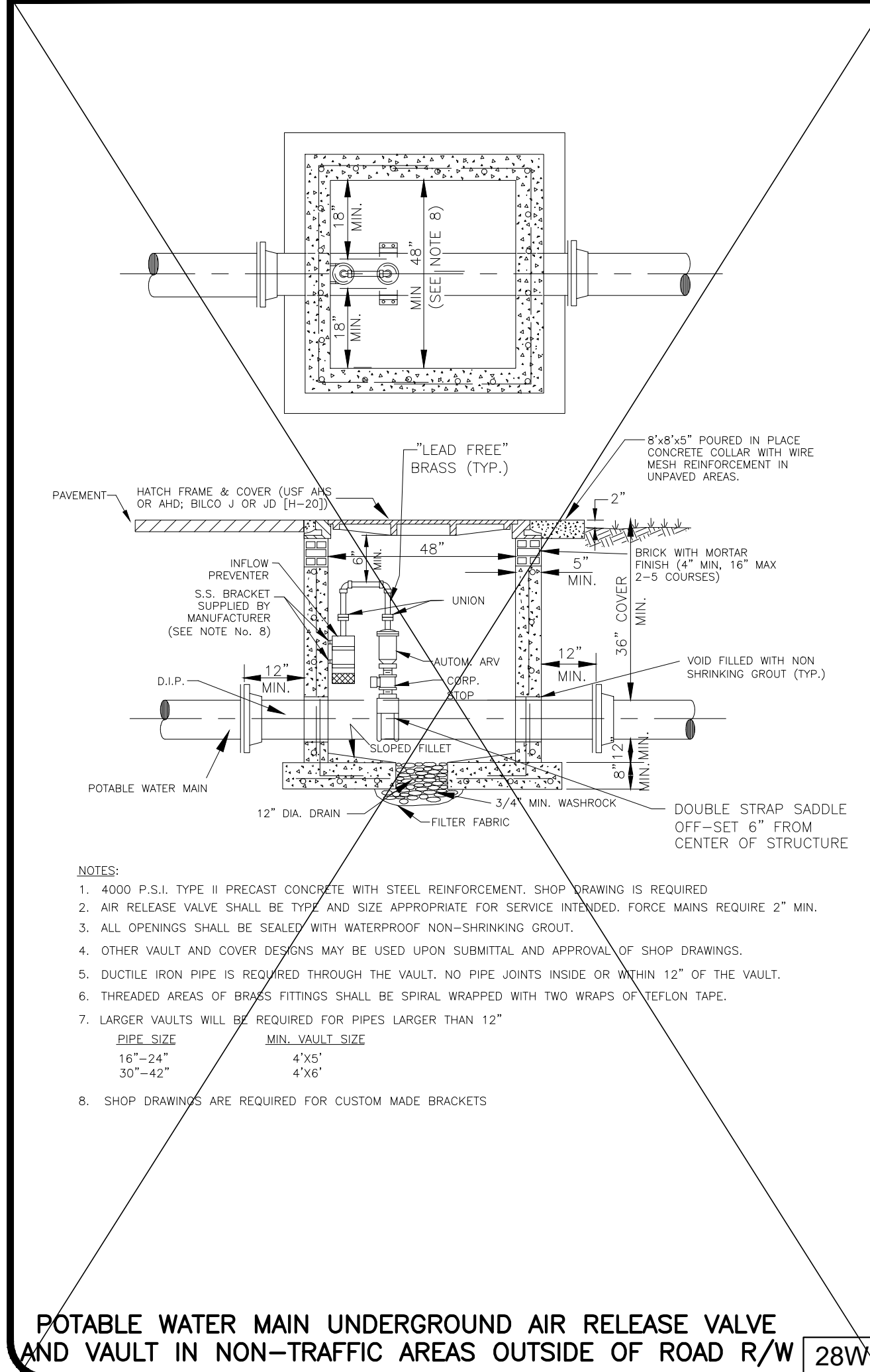
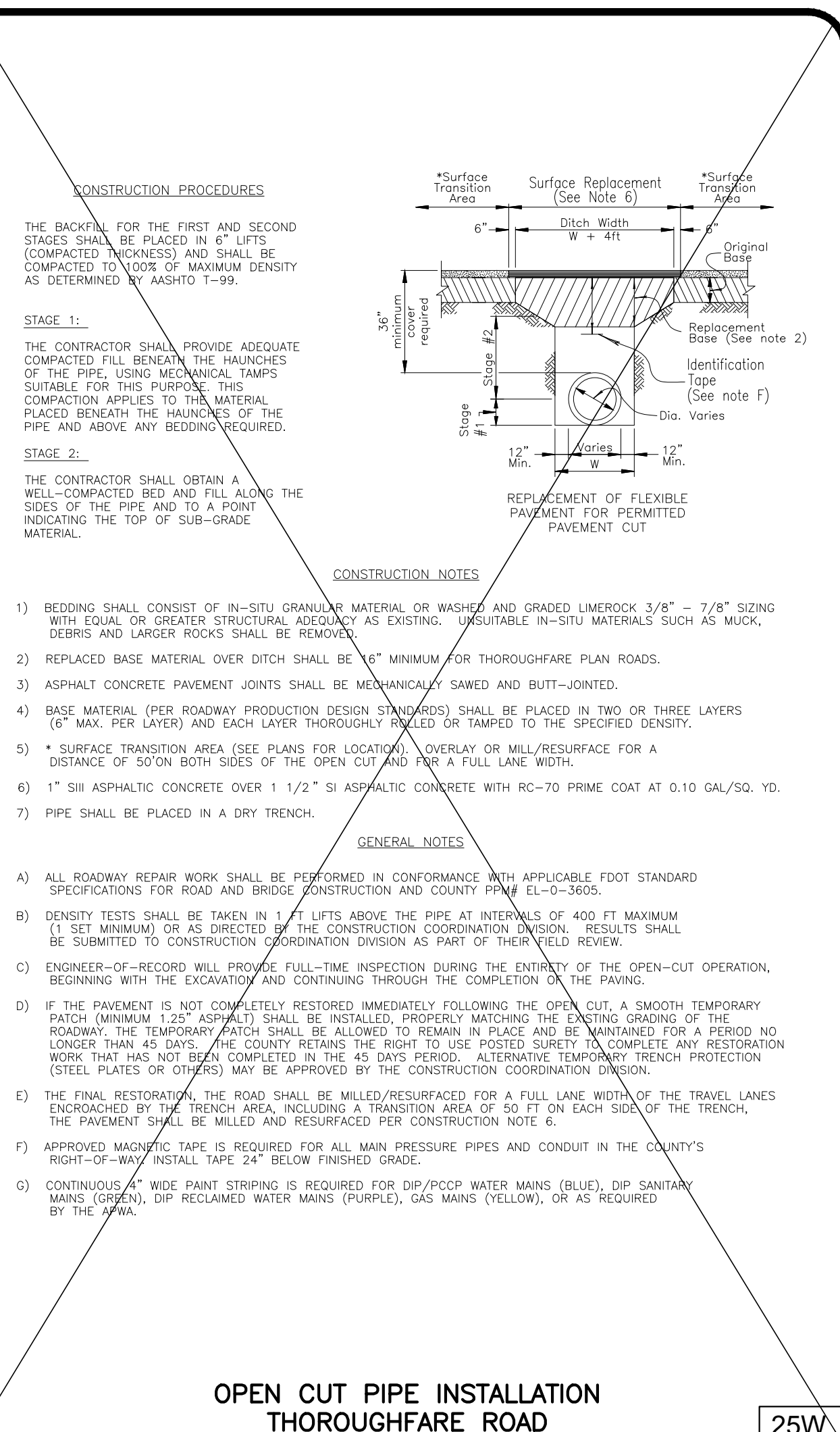
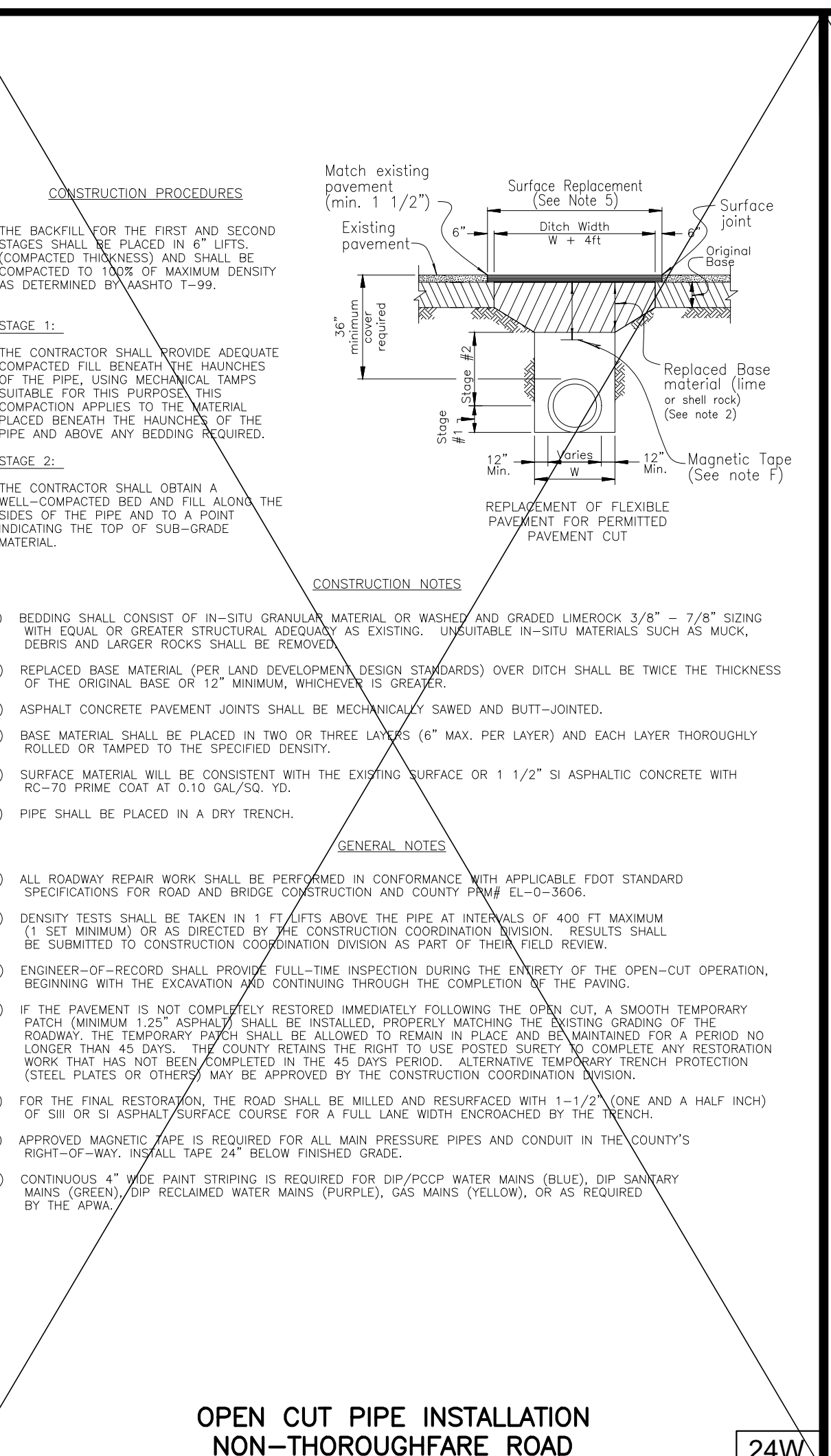
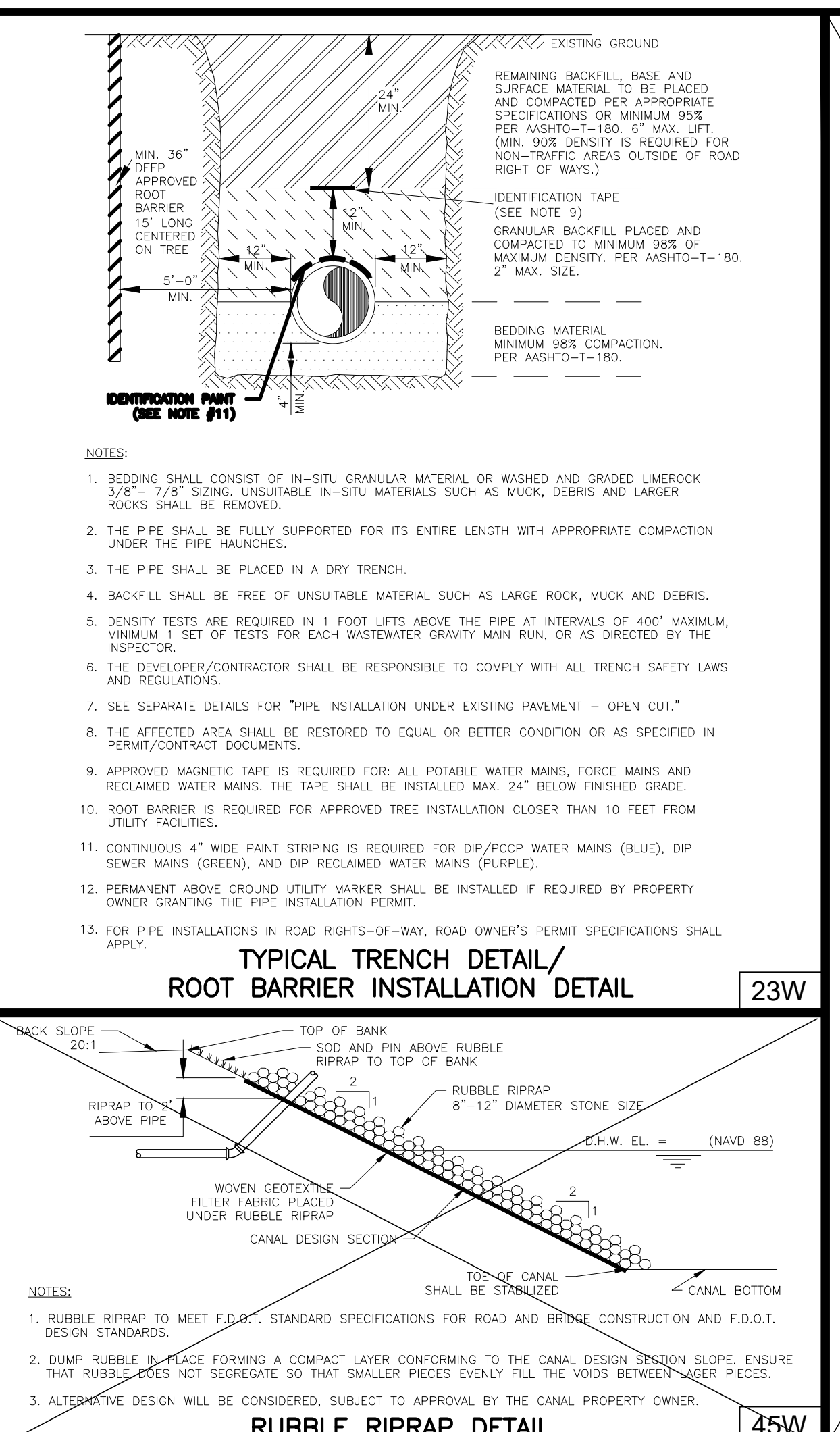
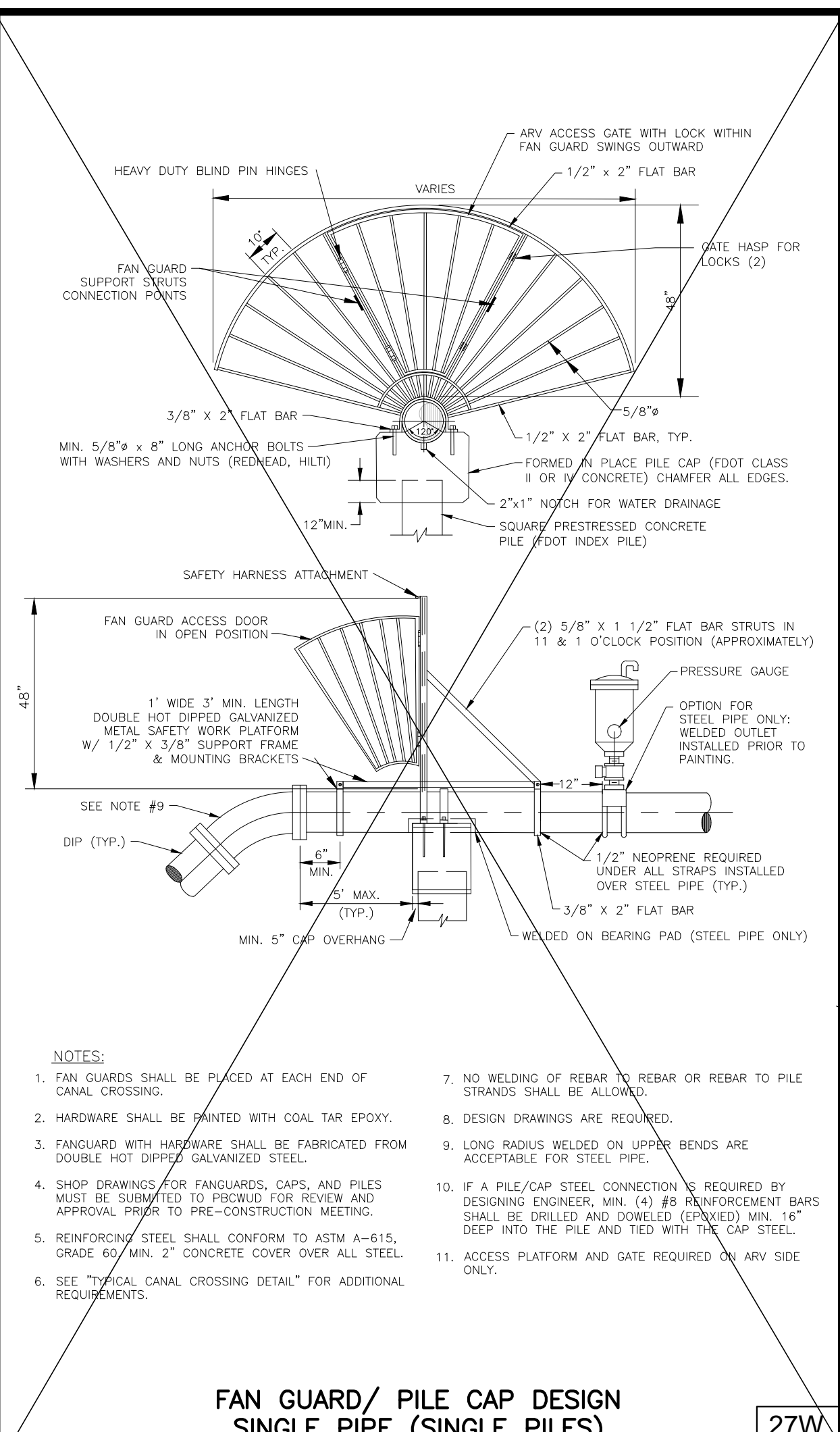
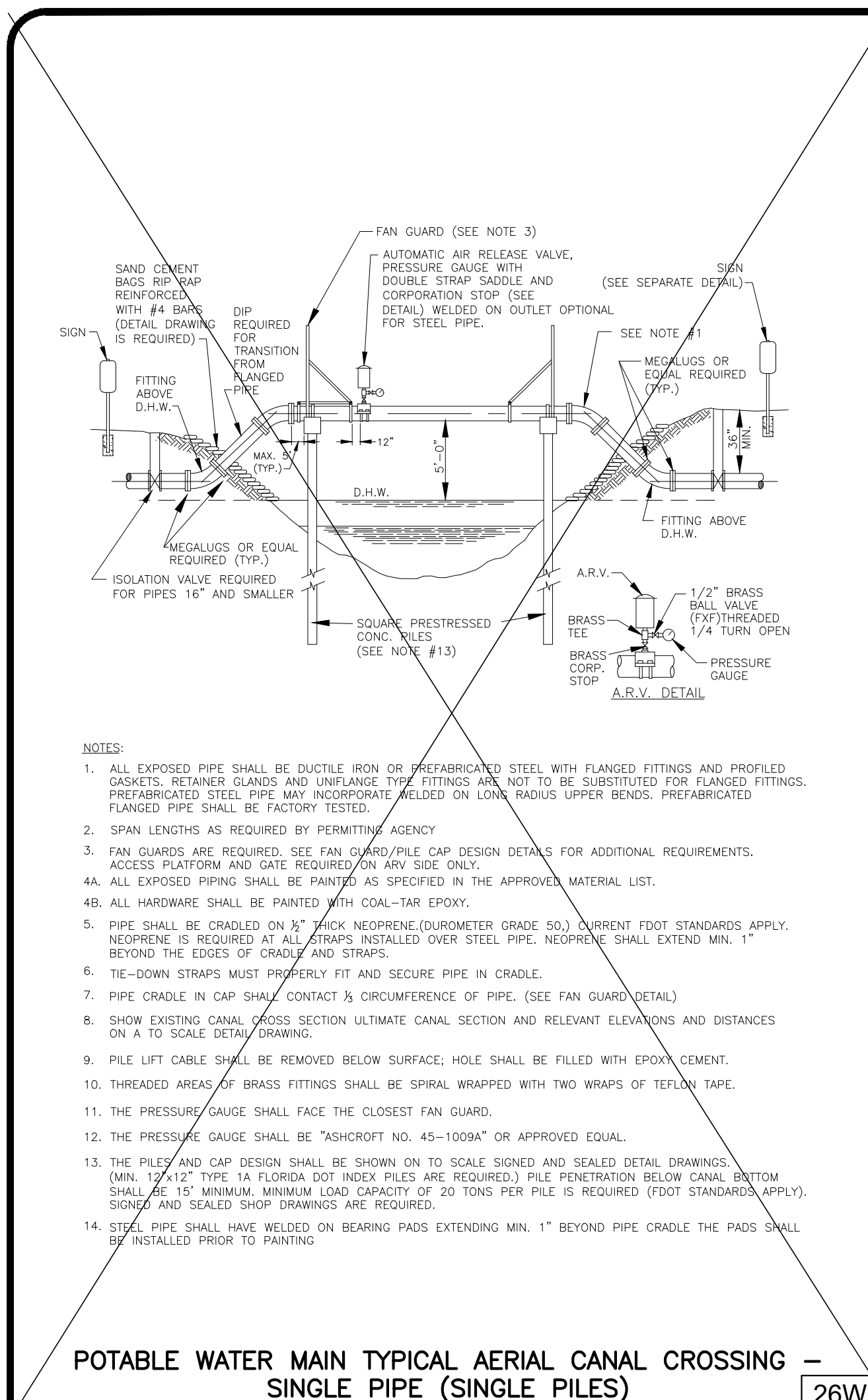
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www.schorah.com
LB# 2438
1850 FOREST HILL BLVD., SUITE 206
WEST PALM BEACH, FLORIDA 33406

REVISIONS	DATE	DESCRIPTION
01/16/16	REV PER SEWARD COMMENTS	

DRAWN/CHECKED:	MAM / JV
SCALE:	NO SCALE
DATE:	AUGUST 2016

PROJECT: FLORENCE FULLER CHILD DEVELOPMENT CENTER
DESCRIPTION: PAVING AND DRAINAGE DETAILS

JOB NO. 1544
SHEET NO. 9
OF 13



POTABLE WATER MAIN CASING INSTALLATION DETAILS 22W

CARRIER PIPE SIZE	STEEL CASING INSIDE DIAMETER (MIN)	MINIMUM WALL THICKNESS (SEE NOTE 2)
4"	12"	.188
6"	14"	.250
8"	20"	.250
10"	20"	.250
12"	24"	.250
14"	24"	.250
16"	30"	.312
18"	30"	.312
20"	36"	.372
24"	42"	.500
30"	48"	.500
36"	54"	.625
42"	60"	.625
48"	72"	.625

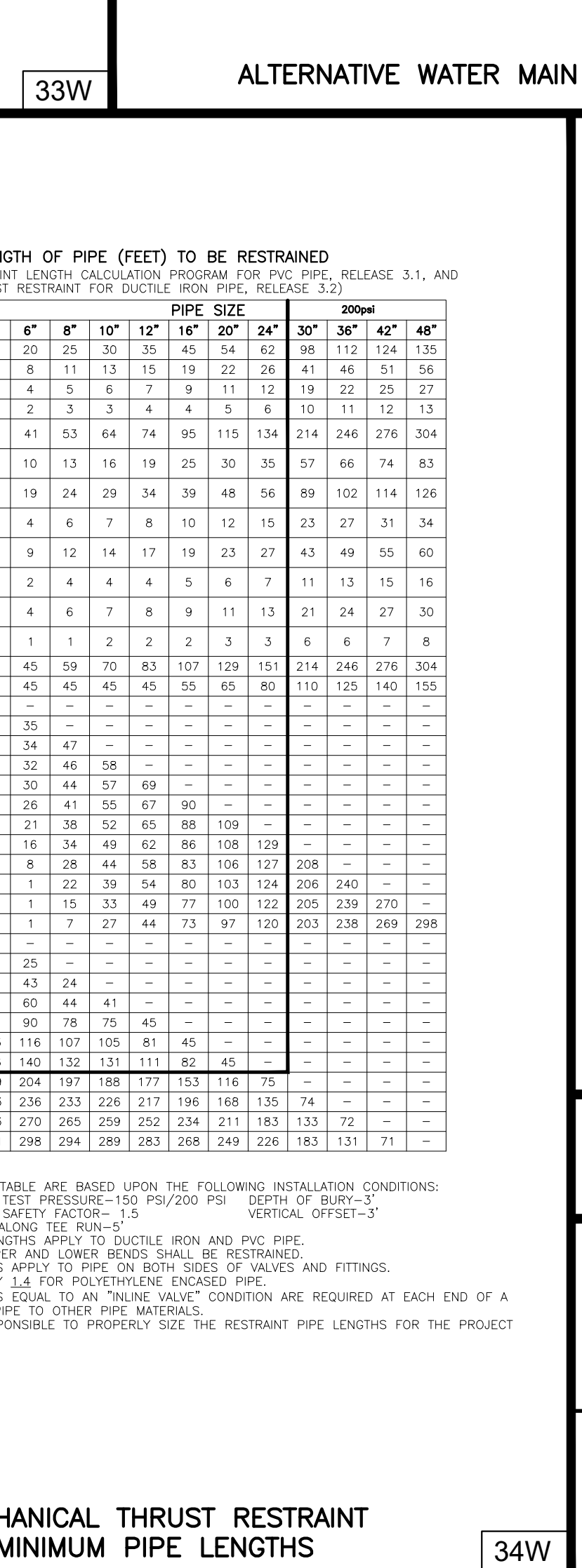
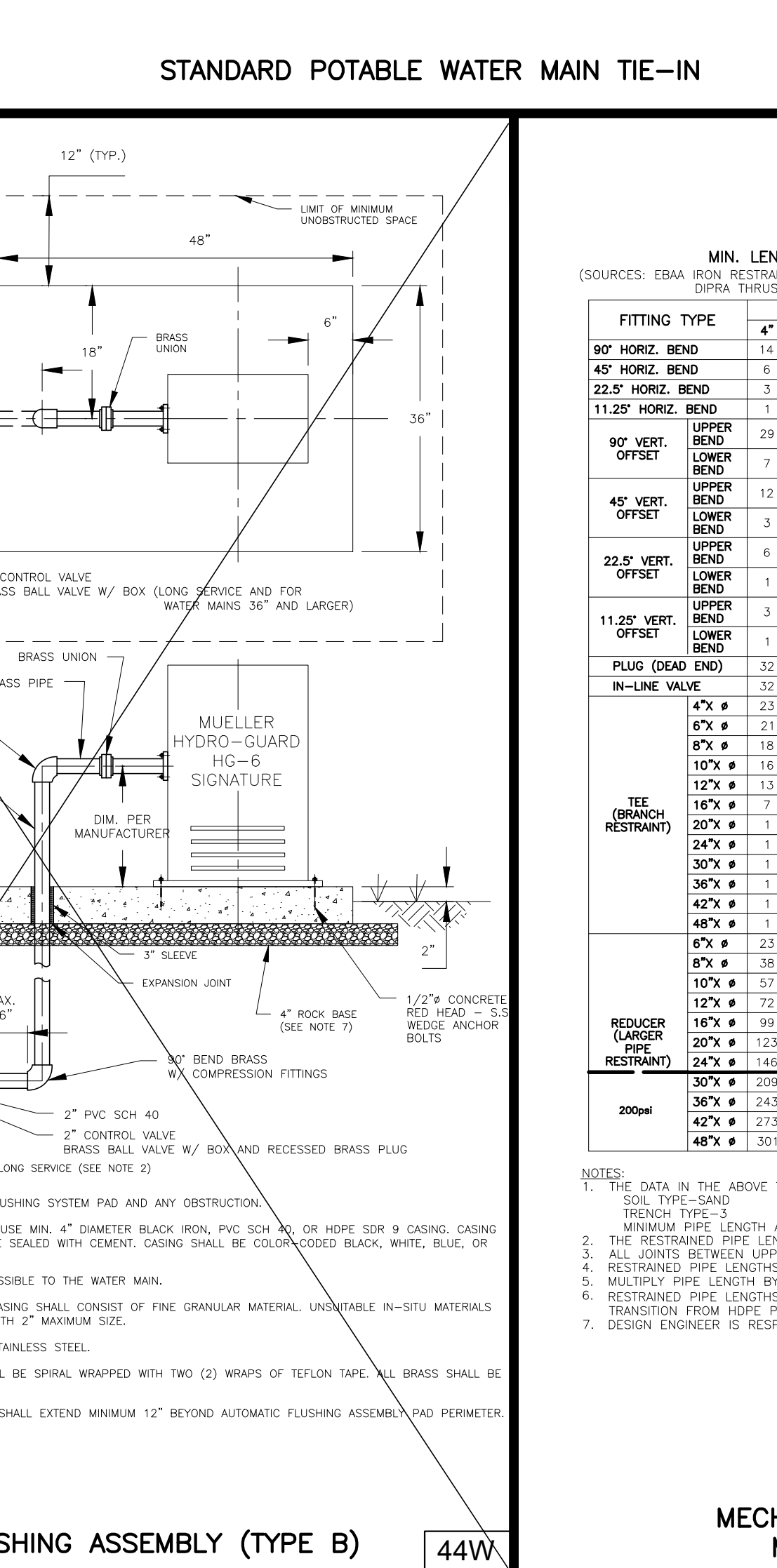
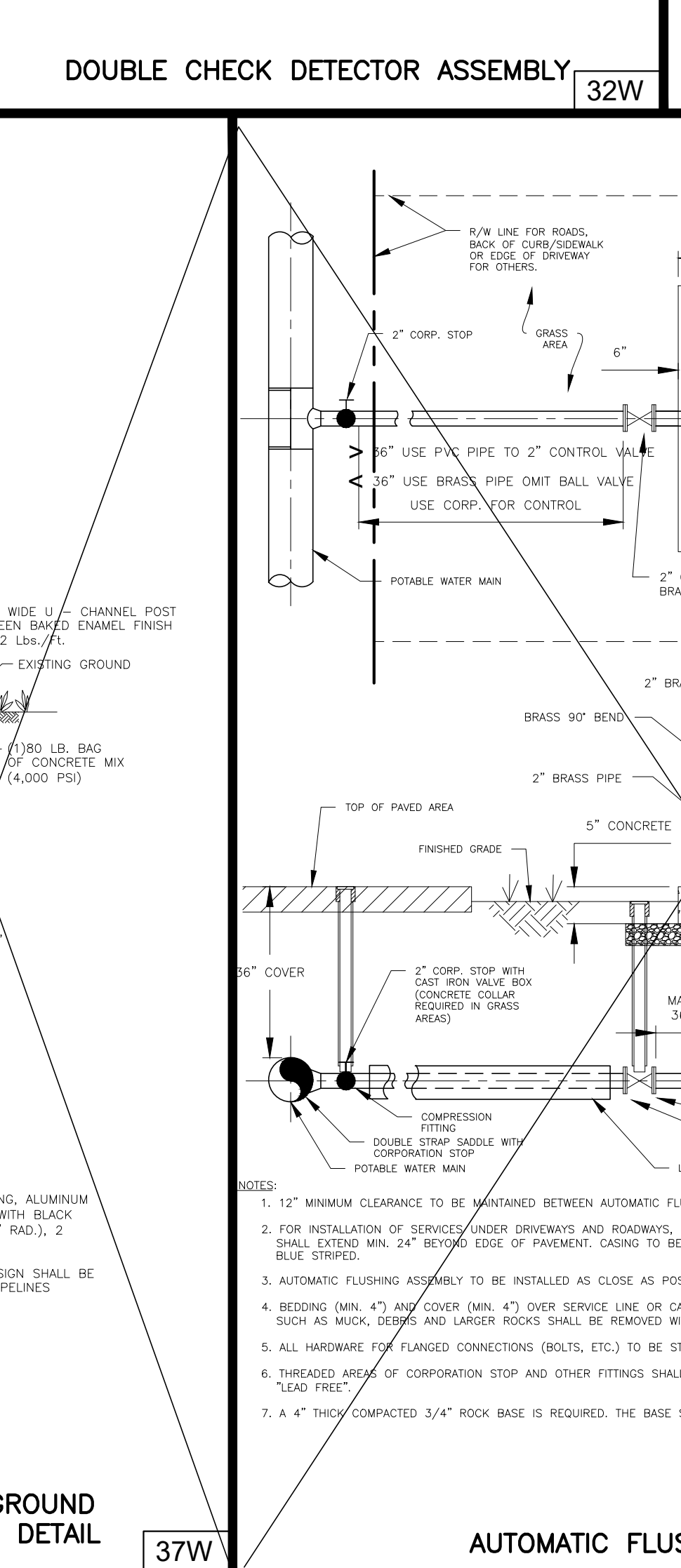
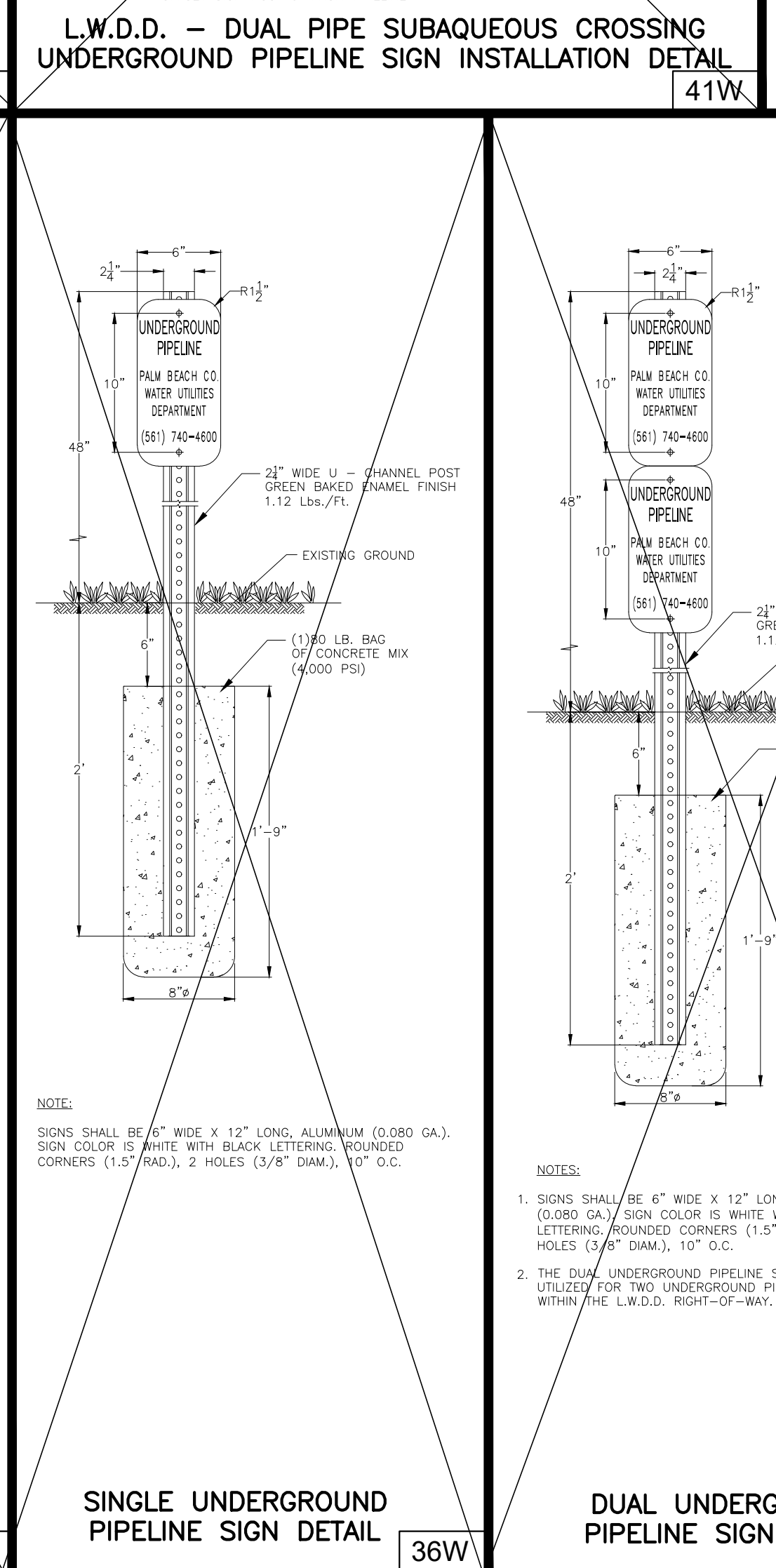
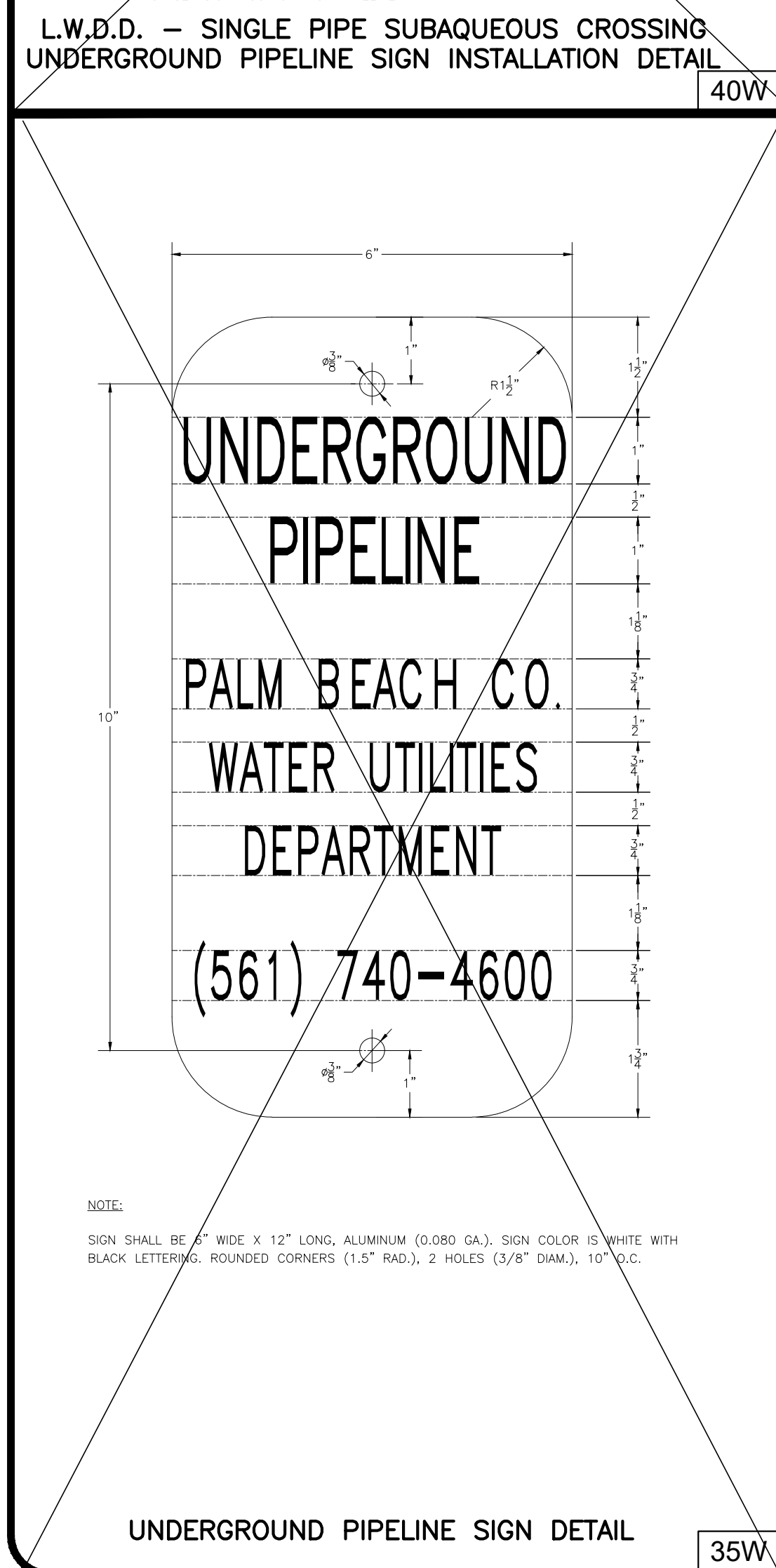
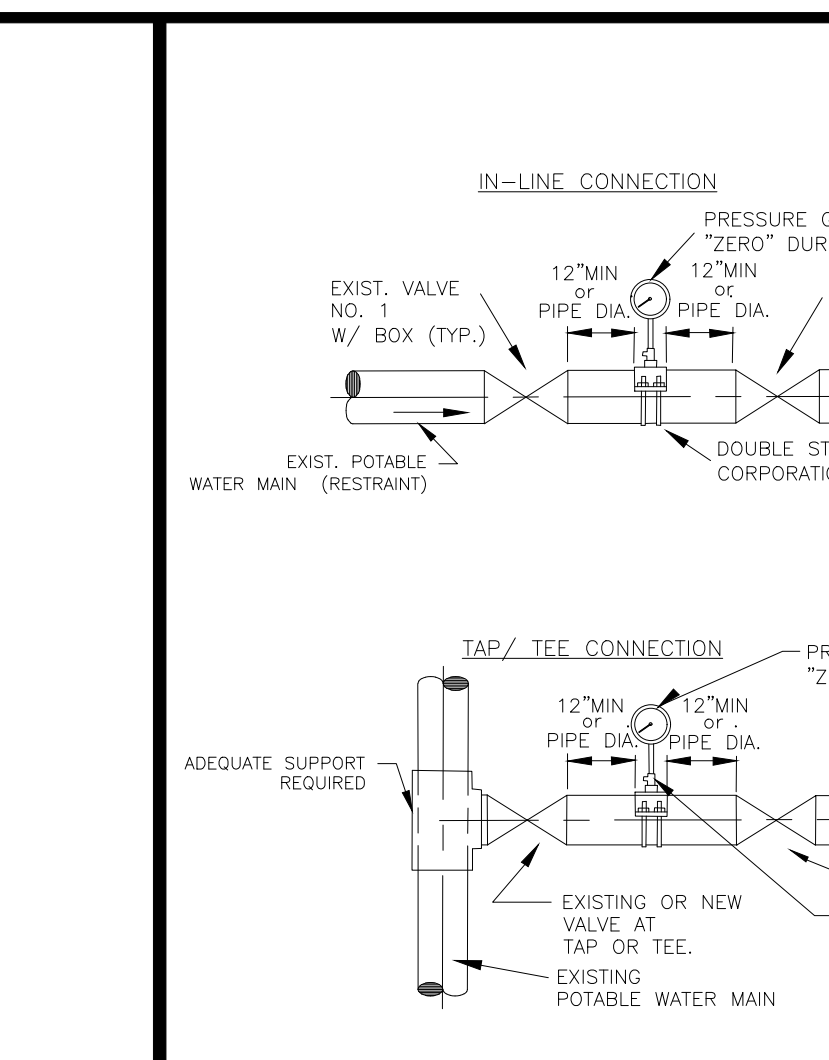
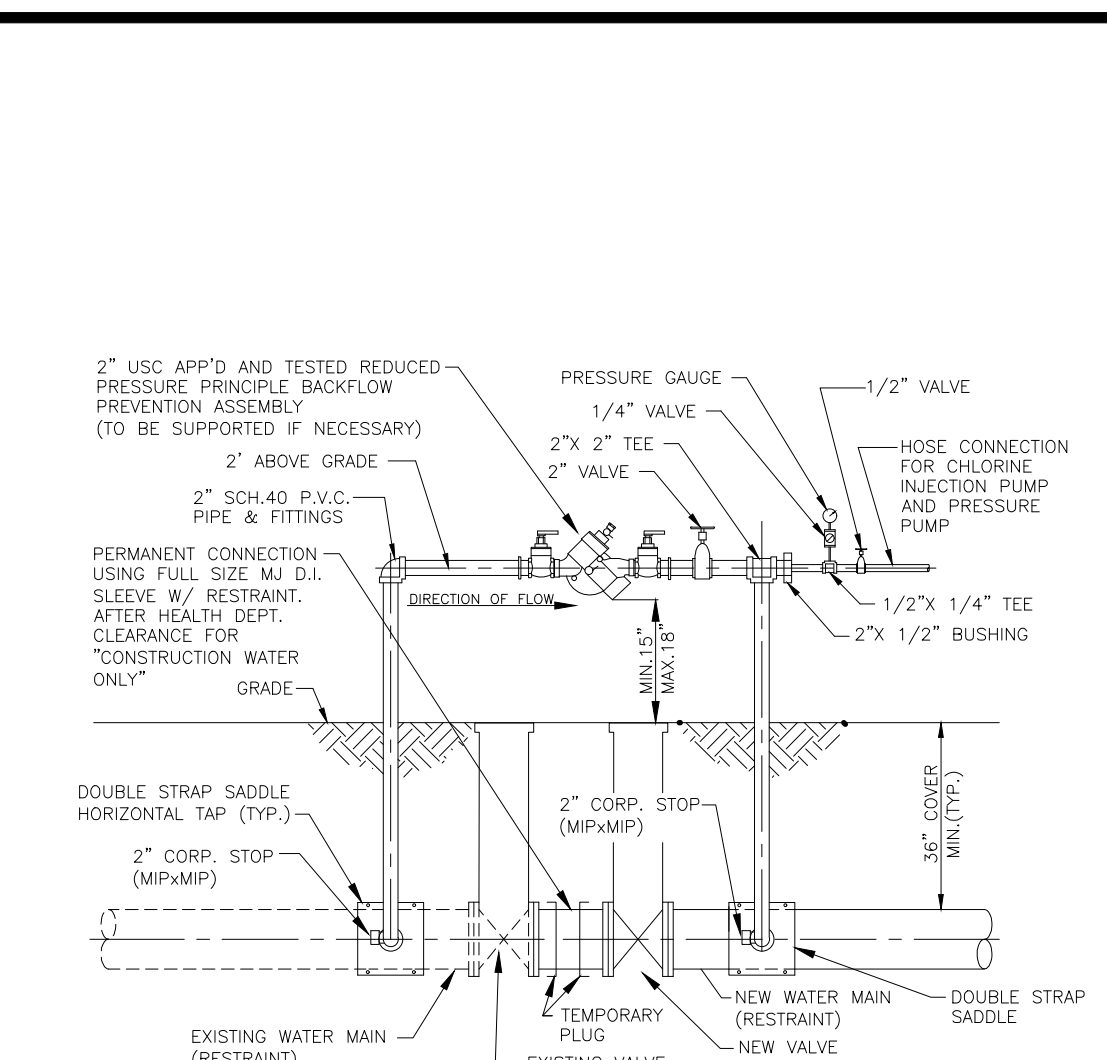
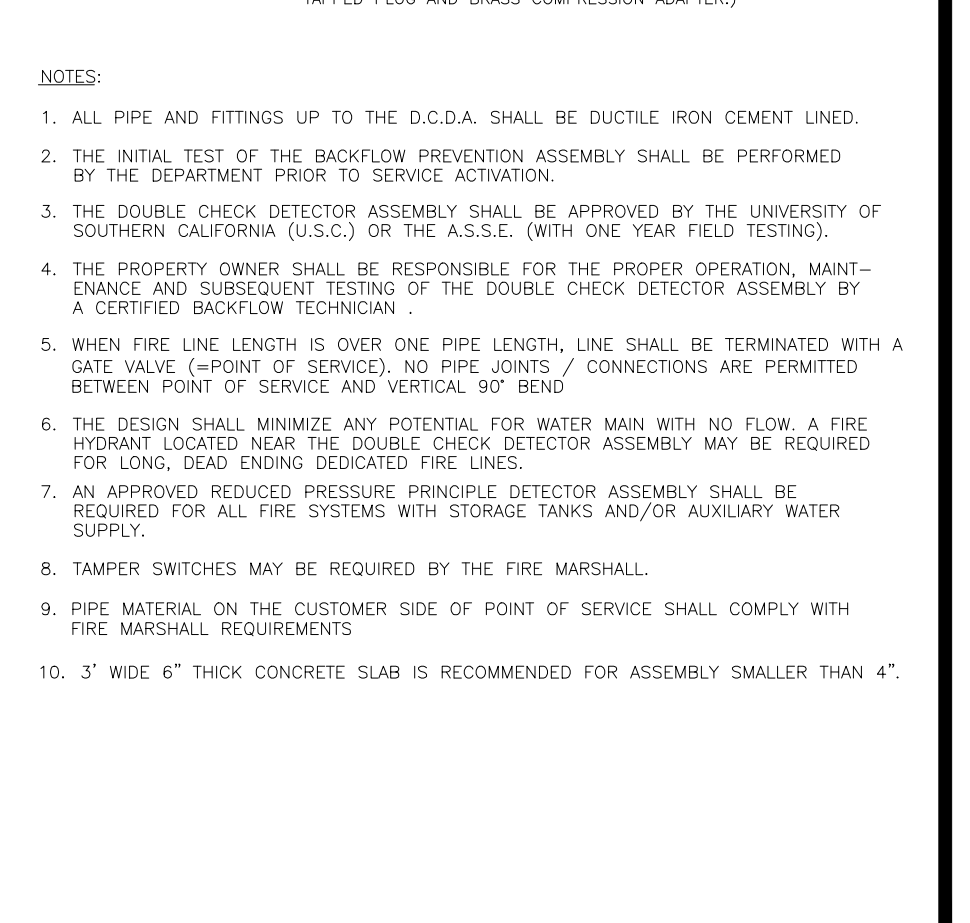
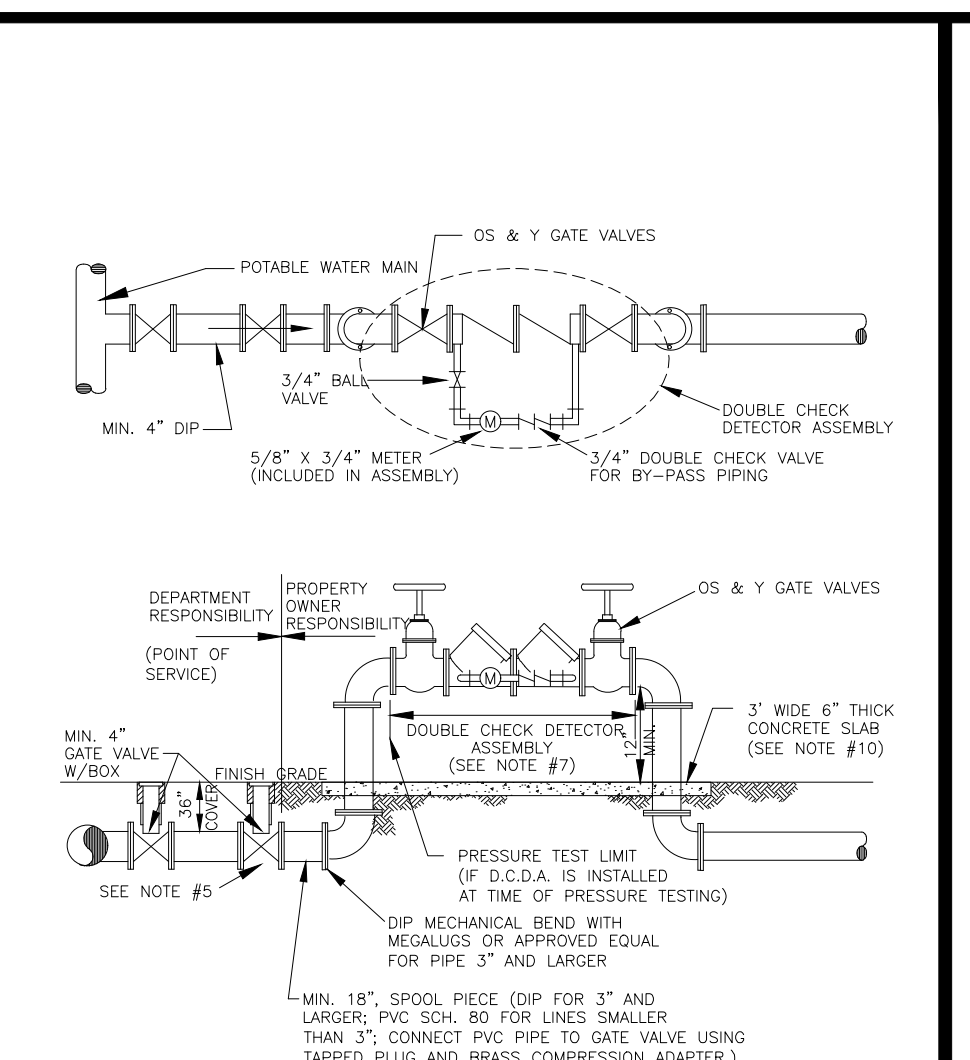
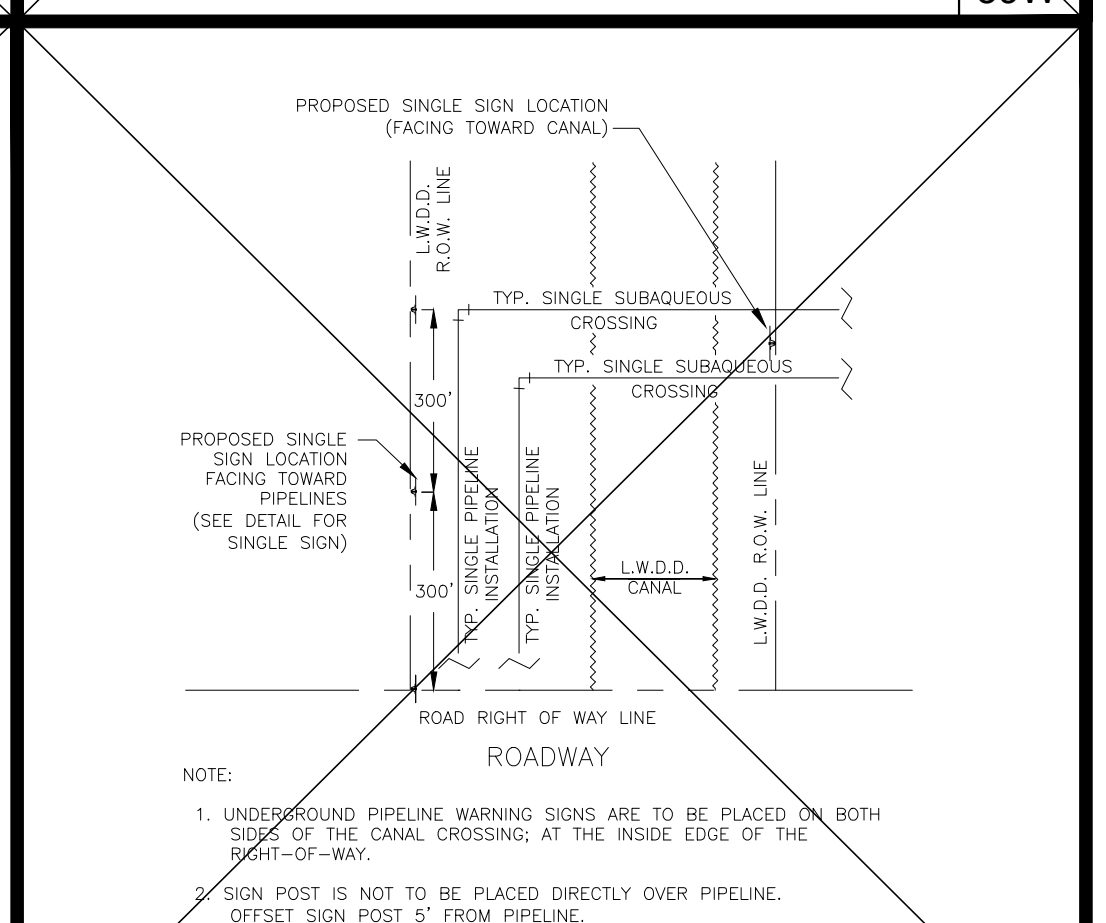
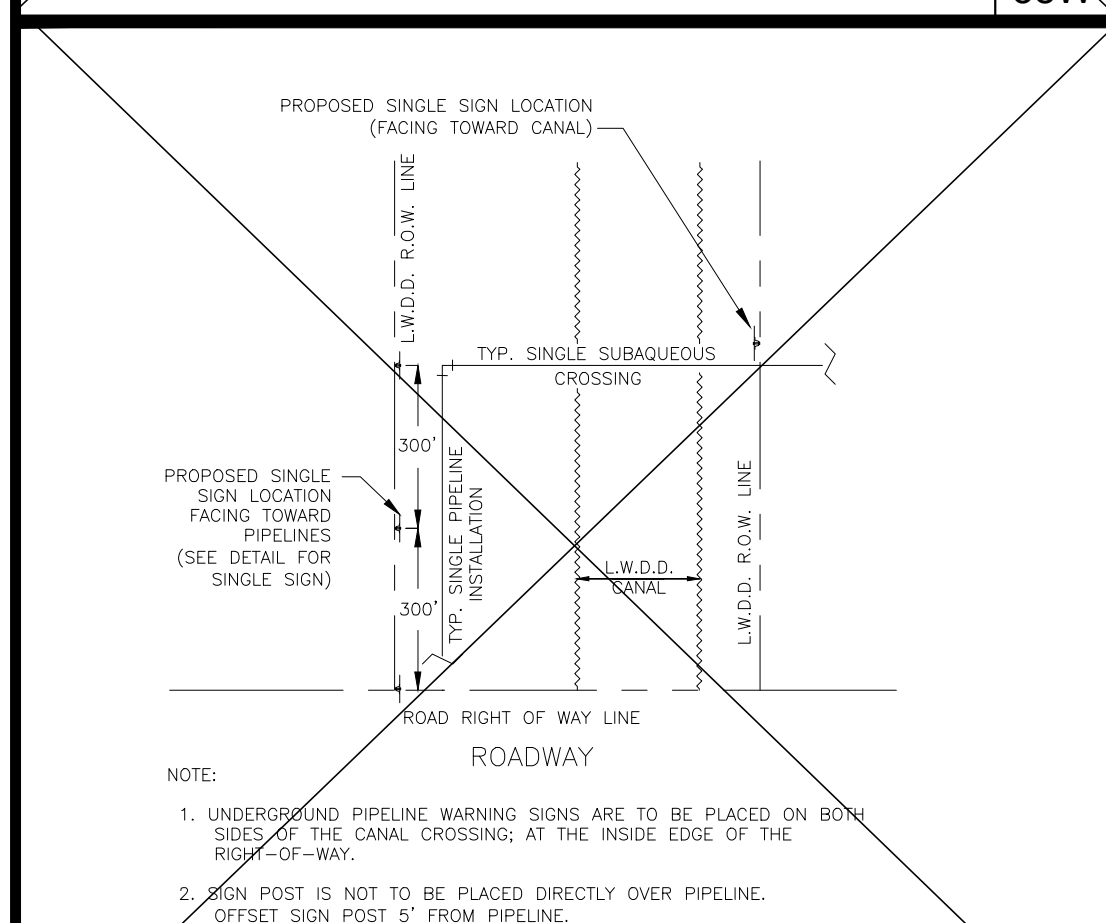
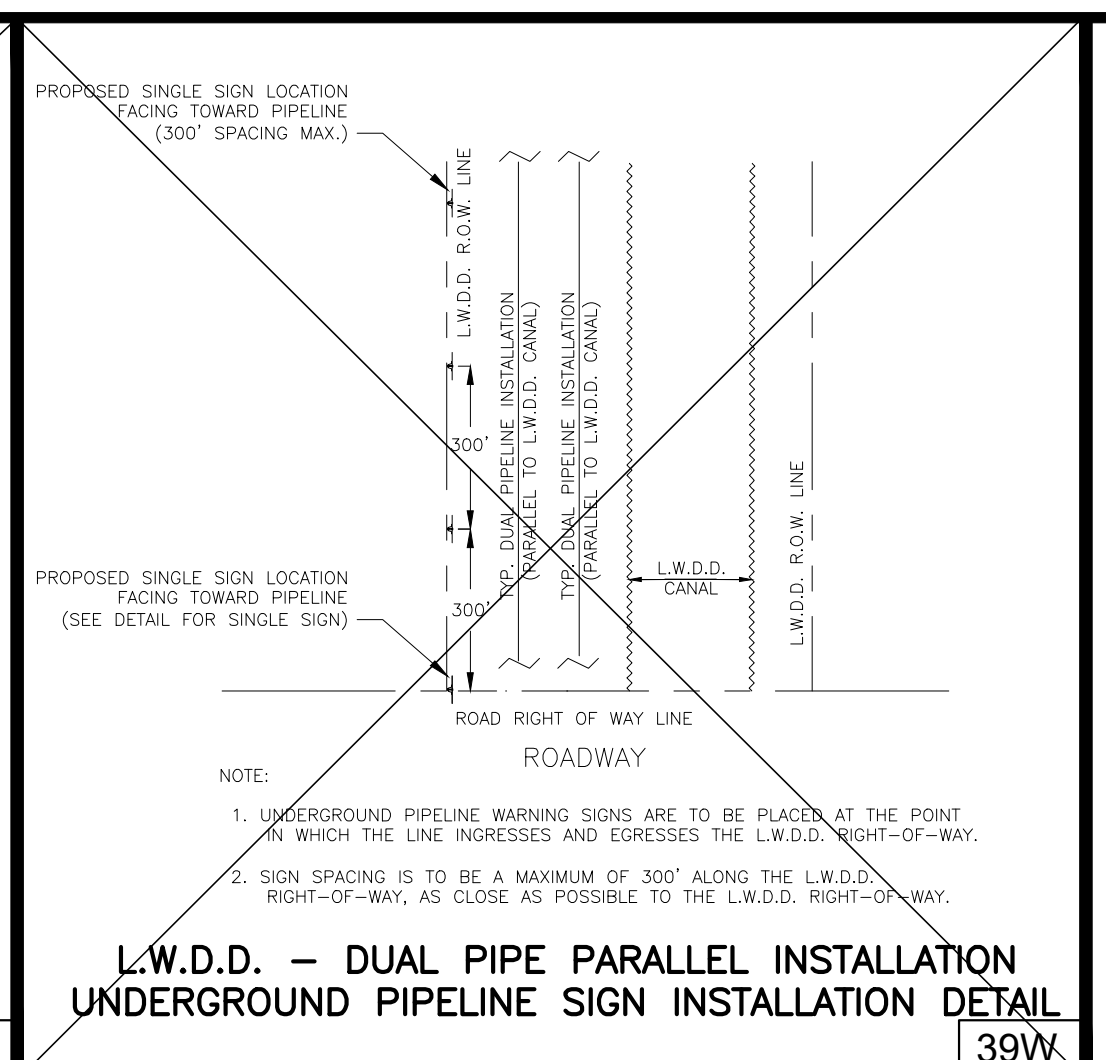
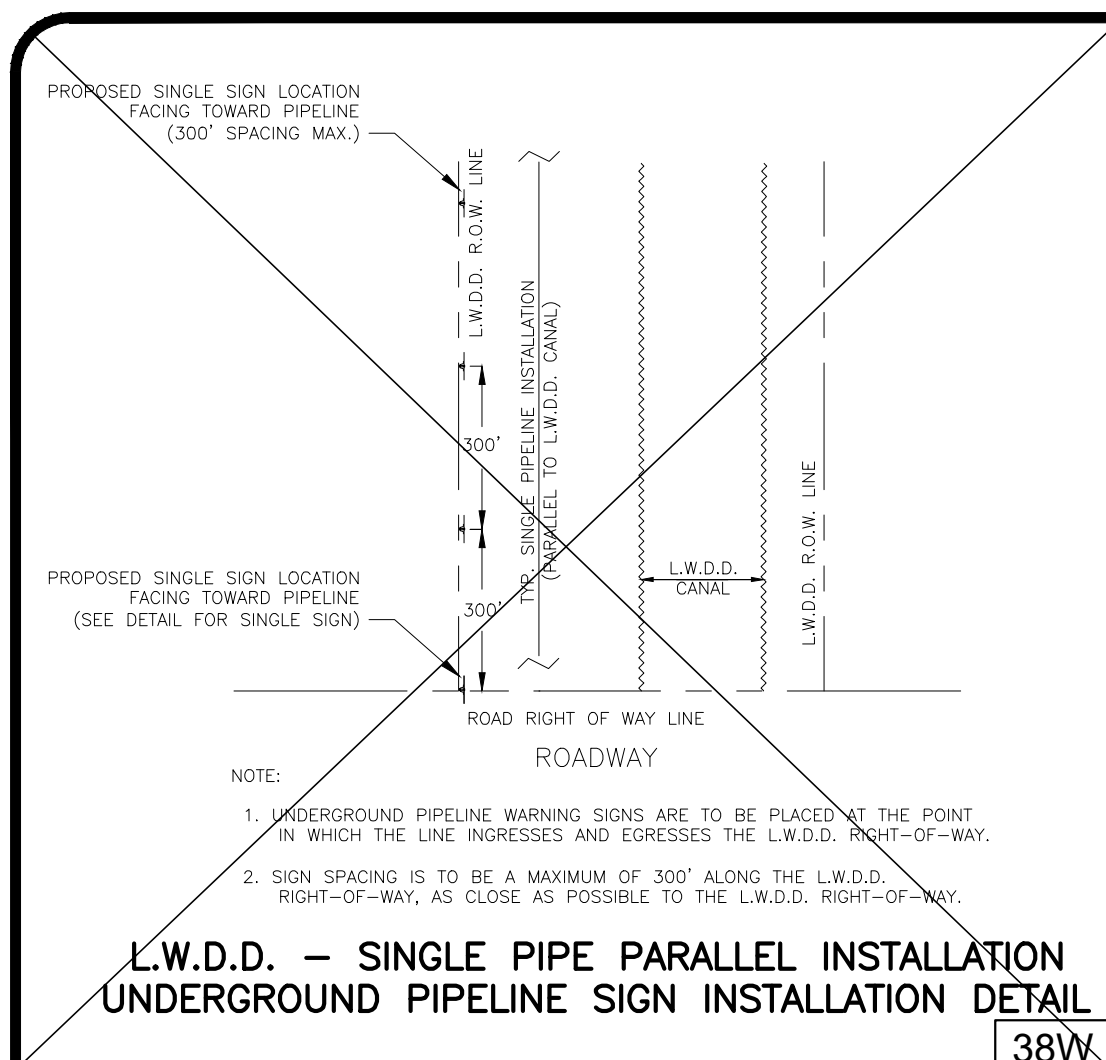
NOTE:
1. A TO-SCALE PROFILE DRAWING FOR EACH UTILITY MAIN JACK AND BORE IS REQUIRED. ALL RELEVANT DATA MUST BE SHOWN (LENGTH AND SIZE OF CASING, PIPE CONFLICTS, ELEVATIONS, ETC.).
2. THICKER WALL CASINGS AND LARGER COVER OVER CASING MAY BE REQUIRED BY THE RIGHT-OF-WAY OWNER.
3. STEEL CASING SHALL BE COATED OUTSIDE WITH COAL TAR EPOXY (MIN. 16 MILS DFT).
4. PIPE IN CASING SHALL BE PULLED TO FULLY ENGAGE RESTRAINT.

POTABLE WATER #3 STANDARD DETAILS

CONSULTANT:
MICHAEL B. SCHORAH & ASSOCIATES, INC.
ENGINEERS SURVEYORS DEVELOPMENT CONSULTANTS
1850 FOREST HILLS BLVD., SUITE 200
WEST PALM BEACH, FLORIDA 33409

DESIGNED BY: WUD
DRAWN BY: WUD CADD
CHECKED BY: A. GALICKI
APPROVED BY: WUD

WUD #16-
Palm Beach County
Water Utilities Department
P.O. Box 16097
West Palm Beach, FL 33416-6097



POTABLE WATER MAIN PRESSURE TEST CRITERIA 31W

MAXIMUM QUANTITY OF WATER (GALLONS PER HOUR) THAT MAY BE SUPPLIED TO MAINTAIN PRESSURE WITHIN 5 P.S.I. OF THE SPECIFIED TEST PRESSURE (MECHANICAL OR PUSH-ON JOINT, 18 FT. NOMINAL LENGTHS, PER 1000 FT. OF PIPE)

AVG. TEST PRESSURE (PSI)	PIPE DIAMETER (INCHES)															
	2	3	4	6	8	10	12	14	16	18	20	24	30	36	42	48
150	0.10	0.14	0.18	0.27	0.37	0.46	0.55	0.64	0.73	0.83	0.92	1.10	1.38	1.65	1.93	2.20
200	0.10	0.15	0.21	0.31	0.42	0.53	0.63	0.74	0.84	0.95	1.06	1.27	1.59	1.91	2.22	2.54

FORMULA: $L = \frac{(5) \times (D) \times (P)^{1/2}}{148,000} \times X/2$

L = MAXIMUM QUANTITY OF WATER TO BE ADDED (GALLONS PER HOUR)
S = LENGTH OF PIPE TESTED (FEET)
D = DIAMETER OF PIPE (INCHES)
P = TEST PRESSURE (P.S.I.)

NOTES:
1. TO OBTAIN THE MAXIMUM QUANTITY OF WATER FOR PIPE WITH 20 FT. NOMINAL LENGTHS, MULTIPLY THE QUANTITY CALCULATED FROM THE TABLE BY 0.5.
2. THE MAXIMUM QUANTITY OF ADDED WATER FOR A PIPELINE IS CALCULATED BY MULTIPLYING THE QUANTITY PER HOUR AS OBTAINED FROM THE ABOVE TABLE, BY THE DURATION OF THE TEST IN HOURS AND BY THE TOTAL LENGTH OF THE LINE BEING TESTED DIVIDED BY 1,000 IF THE LINE UNDER TEST CONTAINS SECTIONS OF VARIOUS DIAMETERS, THE MAXIMUM QUANTITY ADDED WILL BE THE SUM OF THE COMPUTED QUANTITIES FOR EACH SIZE.
3. MAXIMUM TEST LENGTH = 2,500 FEET PER SECTION.
4. THE STANDARD SHALL REFLECT ANY REVISION OF A.W.W.A. C-600, HOWEVER, THE MAXIMUM QUANTITY OF WATER ADDED SHALL NOT EXCEED 50% OF THE RECOMMENDED LIMIT PER APPLICABLE A.W.W.A. C-600 STANDARD.
5. STANDARD TEST PRESSURE = 150 P.S.I.; 200 P.S.I. FOR MAINS LARGER THAN 24"
6. PRESSURE TEST DURATION TO BE MIN. 2 HOURS.

POTABLE WATER MAIN PRESSURE TEST CRITERIA 31W

POTABLE WATER #4 STANDARD DETAILS

CONSULTANT: MICHAEL B. SCHORH & ASSOCIATES, INC.

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DESIGNED BY: WUD WUD #16-
DRAWN BY: WUD CADD Palm Beach County
CHECKED BY: A. GALICKI Water Utilities Department
APPROVED BY: WUD P.O. Box 16097
West Palm Beach, FL 33416-6097



BY	AG
REVISION / REMARKS	
NO.	DATE
1	FEB. 2015
GENERAL	REVISION

STD DETAILS

SHEET NUMBER 13 OF 13

SCALE

JORGE VALLE PELLOTT FOR MICHAEL B. SCHORAH & ASSOCIATES, INC.

- DEFINITIONS**
- DEPARTMENT - THE PALM BEACH COUNTY WATER UTILITIES DEPARTMENT.
 - CONTRACTOR - UTILITY CONTRACTOR AND ALL UTILITY SUBCONTRACTORS.
 - ENGINEER - ENGINEER RESPONSIBLE FOR INSPECTION AND CERTIFICATION.
- GENERAL NOTES**
- A PRE-CONSTRUCTION MEETING IS TO BE HELD PRIOR TO DELIVERY OF MATERIALS AND INITIATION OF ANY POTABLE WATER, RECLAIMED WATER AND/OR WASTEWATER SYSTEM CONSTRUCTION. THE MEETING SHALL BE ATTENDED BY THE DEPARTMENT, CONTRACTOR, ENGINEER AND OTHER INTERESTED PARTIES.
 - ANY REVISIONS TO THE APPROVED PLANS SHALL BE CALLED TO THE ATTENTION OF THE DEPARTMENT PRIOR TO THE PRE-CONSTRUCTION MEETING. REVISED PLANS MUST BE APPROVED PRIOR TO THE MEETING.
 - FIVE (5) COPIES OF THE CURRENT APPROVED MATERIAL LIST AND ALL NECESSARY SHOP DRAWINGS SHALL BE SUBMITTED FOR APPROVAL PRIOR TO SCHEDULING OF THE PRE-CONSTRUCTION MEETING.
 - ALL APPLICABLE PERMITS MUST BE OBTAINED PRIOR TO PRECONSTRUCTION MEETING. DOT, HEALTH DEPARTMENT, COUNTY ENGINEER, ETC.).
 - THE CONTRACTOR SHALL MAINTAIN A CURRENT APPROVED SET OF CONSTRUCTION PLANS ON JOB SITE.
 - ALL MATERIALS SUPPLIED SHALL CONFORM TO PRODUCT LIST AND SHOP DRAWINGS AS APPROVED PRIOR TO CONSTRUCTION. SUBSTITUTE MATERIALS SHALL NOT BE APPROVED AFTER DELIVERY TO THE JOB SITE. ALL REQUESTS FOR MATERIAL SUBSTITUTION SHALL BE APPROVED PRIOR TO DELIVERY OF THESE MATERIALS TO THE JOB SITE.
 - THE LOCATIONS OF EXISTING UTILITIES SHOWN ON THE APPROVED PLANS ARE TO BE VERIFIED IN THE FIELD BY THE CONTRACTOR. APPROVAL OF DEVELOPMENT PLANS BY THE DEPARTMENT IN NO WAY IMPLIES VERIFICATION OF THE ACCURACY OF THOSE PLANS OR FEATURES DERIVED THEREON. ANY DISCREPANCY IN OR VARIATION FROM THE APPROVED PLANS IS TO BE BROUGHT TO THE ATTENTION OF THE DEPARTMENT BY THE ENGINEER AND CONTRACTOR. THE CONTRACTOR SHALL CONFIRM AND INSTALL (IF NECESSARY) ADEQUATE MECHANICAL PIPE / JOINT RESTRAINT ON EXISTING PIPES PRIOR TO CONNECTION.
 - THE CONTRACTOR SHALL BE RESPONSIBLE AT ALL TIMES THROUGHOUT THE DURATION OF CONSTRUCTION FOR THE PROTECTION OF EXISTING AND NEWLY INSTALLED UTILITIES FROM DAMAGE OR DISRUPTION OF SERVICE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TAKING SUCH MEASURES AS NECESSARY TO PROTECT THE HEALTH, SAFETY AND WELFARE OF THOSE PERSONS HAVING ACCESS TO THE WORK SITE.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING LOCATIONS FROM ALL OTHER UTILITY FACILITIES.
 - THE CONTRACTOR OR ENGINEER SHALL SCHEDULE INSPECTIONS AND TESTS A MINIMUM OF 24-48 HOURS IN ADVANCE.
 - NO CONNECTION TO OR ANY OTHER CONSTRUCTION SHALL BE PERFORMED ON AN EXISTING DEPARTMENT OWNED OR MAINTAINED MAN OR STRUCTURE WITHOUT THE PRESENCE OF A DEPARTMENT INSPECTOR.
 - FACILITIES PROPOSED HEREIN SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPROVED PLANS AND THE DEPARTMENT'S MINIMUM STANDARDS. CONFLICTS BETWEEN THE PRECEDING DOCUMENTS SHOULD BE CALLED TO THE ATTENTION OF THE DEPARTMENT FOR RESOLUTION. DEVIATIONS FROM THE APPROVED PLANS MUST BE APPROVED IN ADVANCE BY THE DEPARTMENT.
 - UPON COMPLETION OF CONSTRUCTION, A FINAL INSPECTION SHALL VERIFY PROPER ADHERENCE TO ALL FACETS OF THE PLANS AND SPECIFICATIONS.

- PRESSURE PIPE NOTES**
- THERE SHALL BE 36" MINIMUM COVER FROM FINISHED GRADE TO TOP OF PIPE.
 - DUCTILE IRON PIPE (DIP) THICKNESS SHALL CONFORM TO THE DEPARTMENT'S APPROVED MATERIAL LIST. POTABLE WATER AND RECLAIMED WATER MAINS DIP SHALL BE CEMENT LINED. FORCE MAIN DIP SHALL BE CERAMIC EPOXY LINED.
 - PVC PRESSURE PIPE SHALL BE C-900, SDR-18, 150 PSI.
 - ALL FITTINGS SHALL BE DUCTILE IRON WITH MECHANICAL JOINTS AND CEMENT OR APPROVED EPOXY LINING.
 - POTABLE WATER, RECLAIMED WATER AND WASTEWATER FORCE MAIN VALVES 10 INCHES AND SMALLER SHALL BE RESILIENT SEAT GATE VALVES. TWELVE INCH (12") OR LARGER FORCE MAIN VALVES SHALL BE RESILIENT SEAT GATE VALVES OR ECCENTRIC PLUS VALVES (IF APPROVED IN ADVANCE BY DEPARTMENT). POTABLE WATER AND RECLAIMED WATER MAIN VALVES LARGER THAN 10 INCHES SHALL BE BUTTERFLY VALVES.
 - ALL TRENCHING, PIPE-LAYING, BACKFILL, PRESSURE TESTING, AND DISINFECTION MUST COMPLY WITH ALL APPLICABLE FEDERAL, STATE, COUNTY AND HEALTH DEPARTMENT STANDARDS AND REGULATIONS.

- GRAVITY SEWER NOTES**
- MANHOLES AND OTHER CASTINGS SHALL BE INSPECTED BY THE DEPARTMENT BEFORE PLACEMENT AND BEFORE APPLICATION OF THE CORROSION BARRIER SYSTEM (IF APPLICABLE).
 - ALL OPENINGS IN PRECAST MANHOLES SHALL BE CAST AT TIME OF MANUFACTURE OR CURED IN FIELD.
 - ALL MANHOLES SHALL BE SET PLUMB TO LINE AND GRADE, AND SHALL REST ON A FIRM, CAREFULLY GRADED SUBGRADE, WHICH SHALL PROVIDE UNIFORM BEARING UNDER BASE.
 - PVC WASTEWATER GRAVITY PIPE SHALL CONFORM TO ASTM D-3034, SDR 26 WITH PVC SDR 35 FITTINGS, OR PVC C-900 SDR 18, PIPE AND FITTINGS, WITH PUSH-ON RUBBER GASKET JOINTS.
 - DIP GRAVITY SEWER PIPE SHALL BE PRESSURE CLASS 350, EPOXY LINED.
 - THE COMPLETED GRAVITY WASTEWATER SYSTEM SHALL BE INSPECTED BY THE DEPARTMENT TO VERIFY ALIGNMENT AND INTEGRITY. THERE SHALL BE NO LEAKAGE. ALL MAINS SHALL BE LAMPED, SHOWING A FULL CIRCLE OF LIGHT. DURING THESE INSPECTIONS, THE MAIN SHALL BE CLEAN AND DRY.



WASTEWATER #2 STANDARD DETAILS

CONSULTANT:

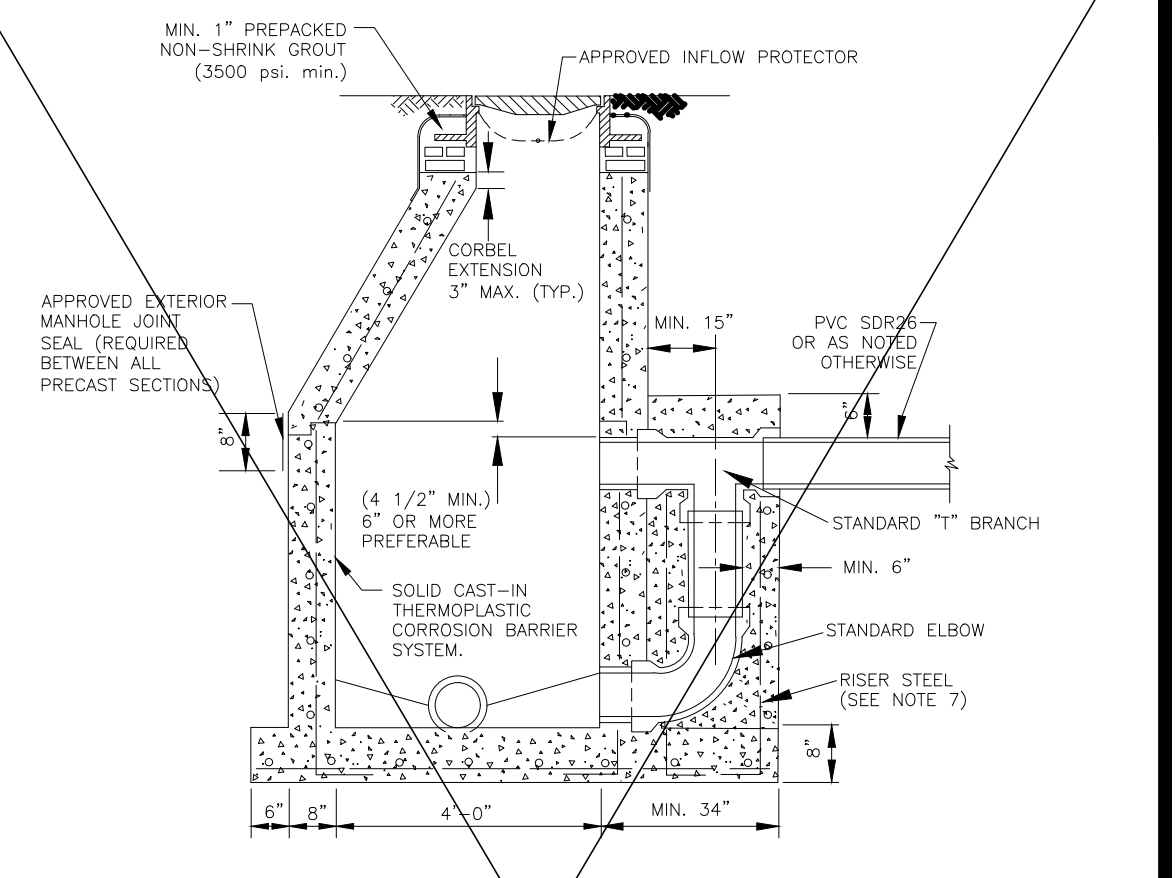
MICHAEL B. SCHORAH & ASSOCIATES, INC.

ENGINEERS SURVEYORS DEVELOPMENT CONSULTANTS
P.O. BOX 16087
WEST PALM BEACH, FL 33416
TEL: (561) 469-6000

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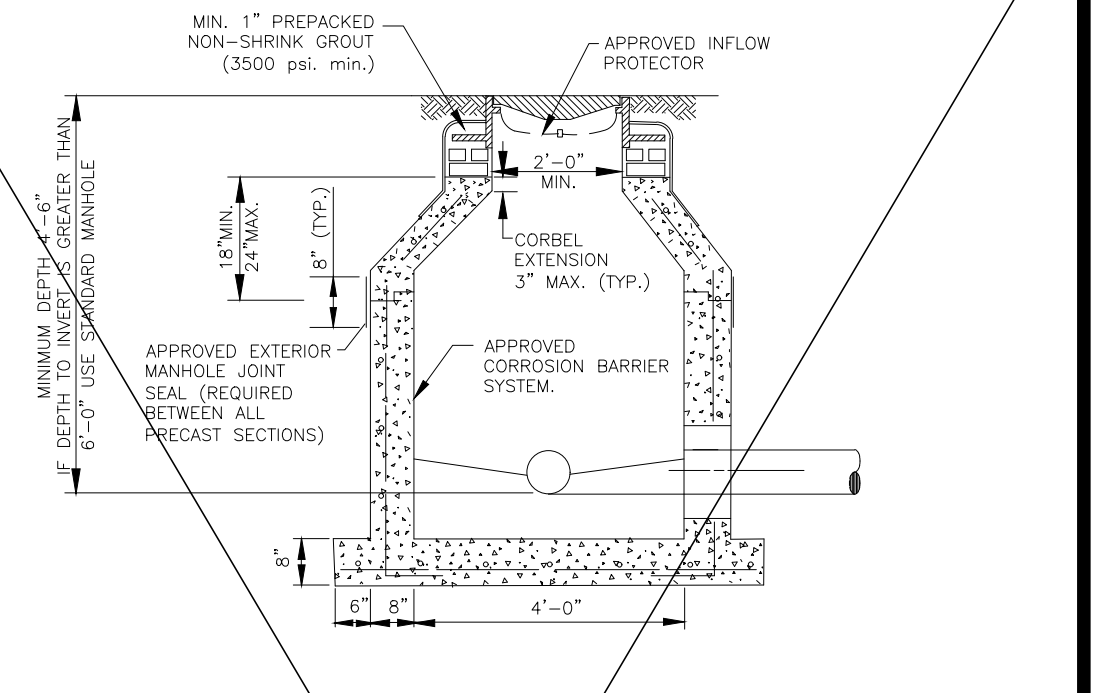
DESIGNED BY: WUD
DRAWN BY: WUD CADD
CHECKED BY: A. GALICKI
APPROVED BY: WUD

WUD #16-
Palm Beach County
Water Utilities Department
P.O. Box 16097
West Palm Beach, FL 33416-6097



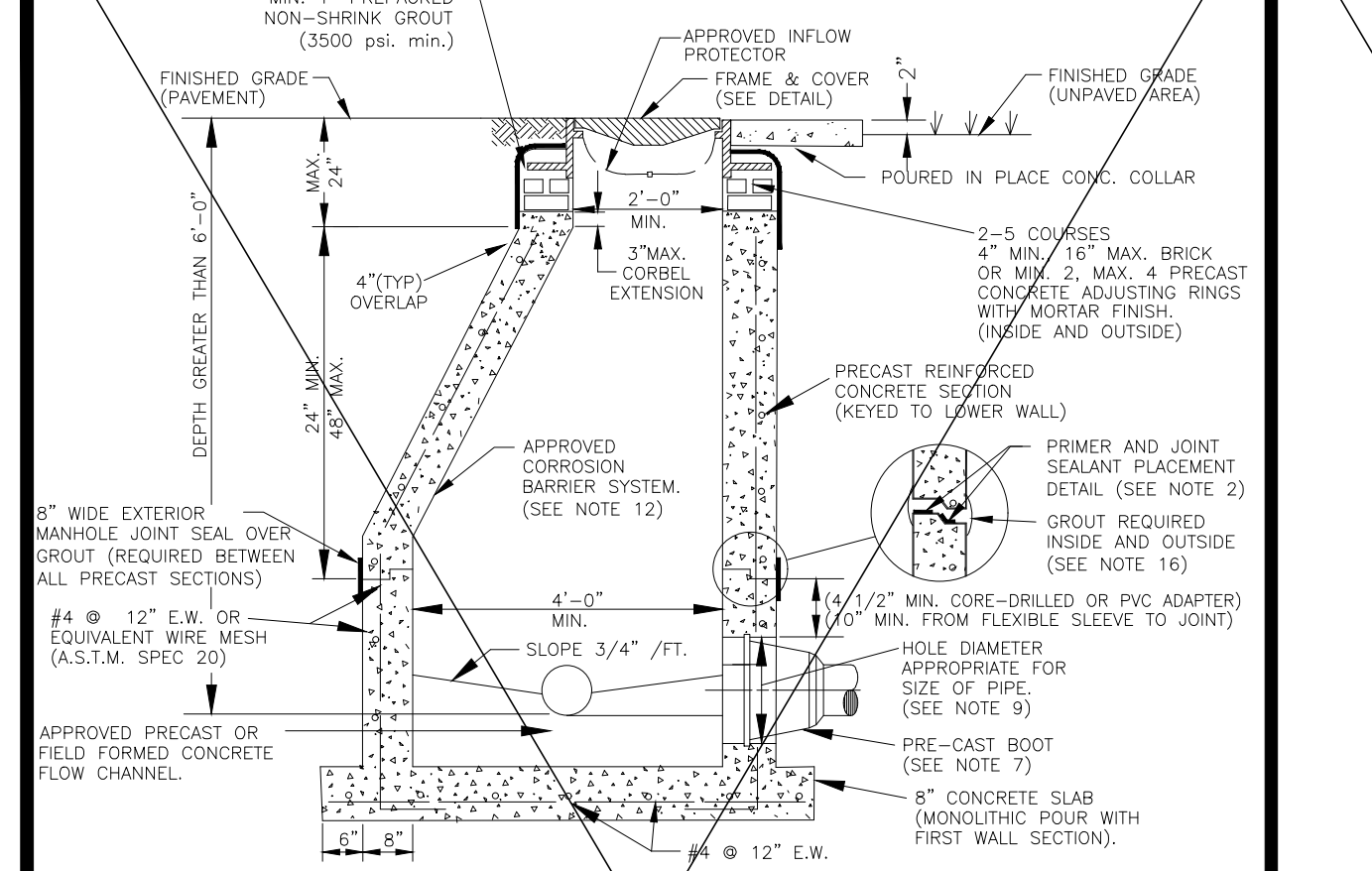
- NOTES:**
- ALL DETAILS AND SPECIFICATIONS FOR STANDARD MANHOLES ARE APPLICABLE EXCEPT FOR REFERENCES TO DROP ASSEMBLY AND CAST IN LINERS.
 - THE PRECAST BASE SHALL EXTEND FULLY UNDER THE DROP ASSEMBLY, IF FILLED WITH CONCRETE, IS PERMISSIBLE.
 - MASONRY CONSTRUCTION ABOVE THE EXTENDED PRECAST BASE, IF FILLED WITH CONCRETE, IS PERMISSIBLE.
 - BRICK AND CONCRETE RUBBLE ARE PERMITTED AS FILLER IN DROP ENCASMENT.
 - DROP CONNECTIONS SHALL BE REQUIRED WHENEVER AN INFLUENT INVERT IS LOCATED 2.0 FEET OR MORE ABOVE THE MAIN INVERT CHANNEL. DROP CONNECTIONS SHOULD NOT BE DESIGNED FOR LESS THAN A 2.4 FOOT DROP.
 - PVC SDR 26 PIPE WITH PVC SDR 35 FITTINGS SHALL BE UTILIZED IN THE DROP ASSEMBLY.
 - RISER STEEL TO BE CAST IN PLACE WITH BASE (4 RODS) OR USE 4 - 1/2" DIA. COIL LOOP INSERTS CAST IN PLACE WITH BASE TO BE USED WITH 1/2" COIL RODS. COIL LOOP INSERTS TO BE "DARTON SUPERIOR" B16, 1/2"x4" OR APPROVED EQUAL.

DROP CONNECTION PRECAST MANHOLE 15S



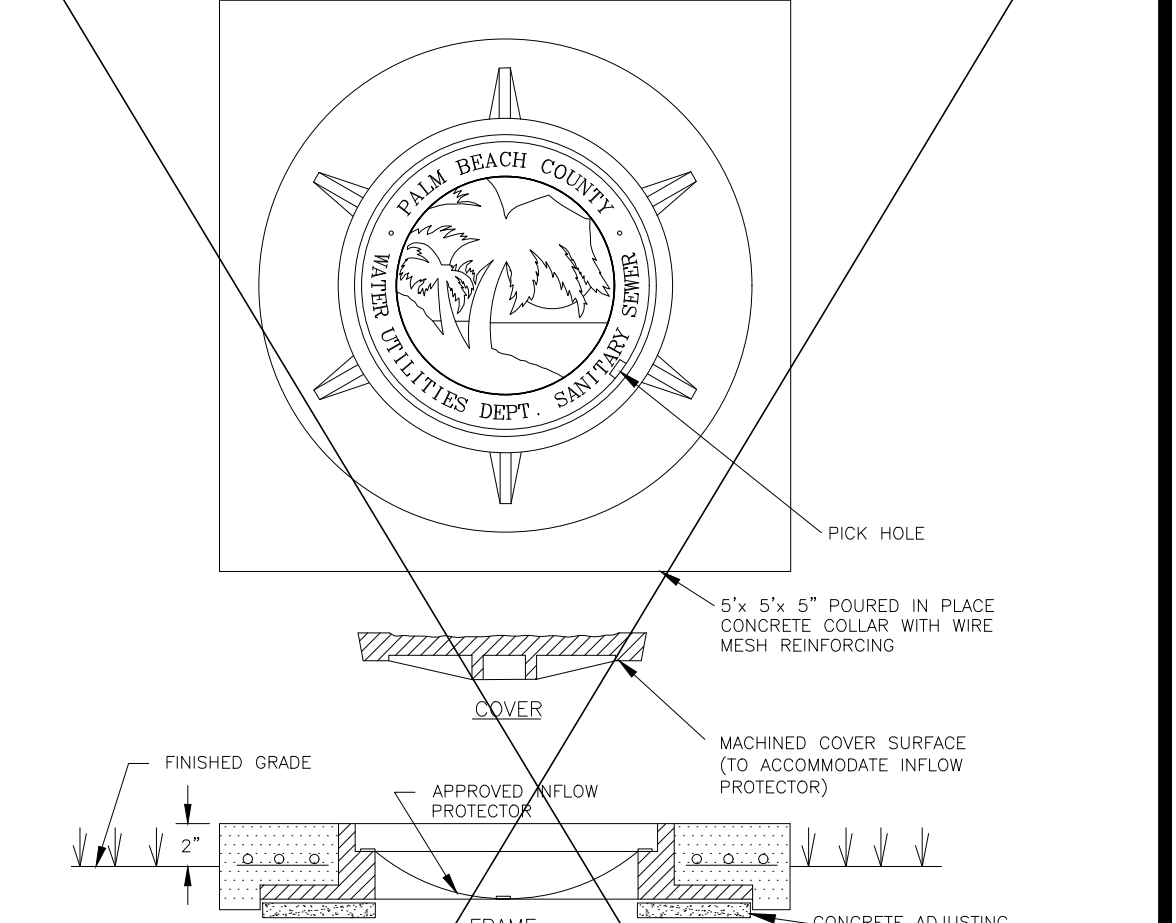
NOTE:
ALL STANDARD MANHOLE NOTES AND DETAILS ARE APPLICABLE.

SHALLOW MANHOLE 14S



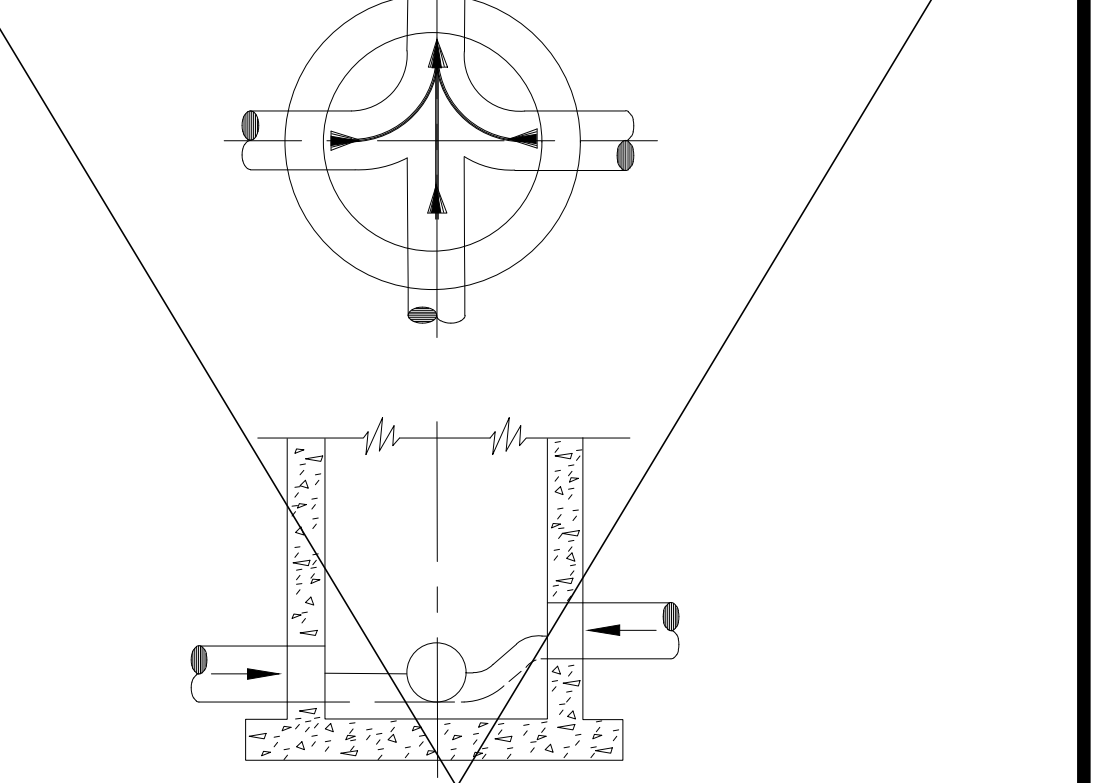
- NOTES:**
- PRECAST CONCRETE TYPE II 4000 P.S.I. CALCEAREOUS AGGREGATE REQUIRED (MIN. CO₂3 CONTENT: 65% IN LARGE AGGREGATE, SUR IN CONCRETE SCREENING).
 - INSTALL APPROVED JOINT SEALANT AT ALL RISER JOINTS WITH GROUT ON INSIDE AND OUTSIDE. MANHOLE SHOP DRAWINGS SHALL INCLUDE THE SIZE AND PLACEMENT OF JOINT SEALANT. AN APPROVED JOINT PRIMER SHALL BE APPLIED BY THE PRECASTER (TONGUE SECTION ONLY).
 - ALL OPENINGS SHALL BE SEALED WITH A WATERPROOF NON-SHRINKING GROUT.
 - FLOW CHANNELS SHALL BE PRECAST OR FIELD CONSTRUCTED TO DIRECT INFLUENT INTO FLOW STREAM. (SEE DETAIL)
 - LIFT HOLES ARE PERMITTED.
 - ALL PIPE HOLES SHALL BE PRECAST OR CORE DRILLED.
 - A. FOR PVC PIPE ENTERING MANHOLE WITH PRECAST HOLES USE THE APPROVED PRECASTED FLEXIBLE MANHOLE SLEEVE FOR THE APPROPRIATE PIPE DIAMETER AND DIMENSION RATIO. DOUBLE BANDING IS REQUIRED FOR FLEXIBLE MANHOLE SLEEVES.
B. CONNECTION TO A MANHOLE WITH A CORE DRILLED HOLE SHALL BE MADE USING A 1/2" MIN. PVC CROD DR 18 AND THE APPROVED PVC-MANHOLE ADAPTER. THE ADAPTER SHALL NOT EXTEND MORE THAN 1" INTO THE MANHOLE.
C. THE INSIDE AND OUTSIDE SPACE BETWEEN PIPE AND MANHOLE WALL SHALL BE FILLED WITH GROUT.
 - INSIDE DROPS SHALL NOT BE DESIGNED TO EXCEED 1.80 FEET AND NOT CONSTRUCTED TO EXCEED 2.0 FEET. MAX. 6" INSIDE DROP IS PERMITTED FOR MANHOLES WITH 3 OR MORE INVERTS AND MANHOLES WITH A CHANGE IN FLOW DIRECTION OF MORE THAN 45 DEGREES.
 - 8" DIAMETER PIPE: 15" HOLE FOR PVC - 10" DIAMETER PIPE: 12" HOLE FOR PVC.
 - MANHOLE FABRICATION SHALL BE IN ACCORDANCE WITH ASTM C-478, LATEST STANDARD.
 - MINIMUM 5 FEET IS REQUIRED BETWEEN OUTSIDE OF MANHOLE AND A SERVICE WYE.
 - MANHOLES TO BE COATED INSIDE WITH AN APPROVED CORROSION BARRIER SYSTEM. SOLID THERMOPLASTIC CAST-IN LINER IS REQUIRED FOR LIFT MANHOLE PRIOR TO LIFT STATION, MANHOLES DEEPER THAN 14 FT., MANHOLES WITH OUTSIDE DROP, AND MANHOLES WITH A FORCE MAIN CONNECTION. (SEE APPROPRIATE DETAILS)
 - APPROVED INFLOW PROTECTORS ARE REQUIRED.
 - MANHOLES IN ROADWAYS SHALL BE LOCATED OUTSIDE OF WHEEL PATHS.
 - SPECIAL PRE-APPROVED GROUT IS REQUIRED FOR PRECAST STRUCTURES WITH ANTIMICROBIAL ADMIXTURE.

STANDARD MANHOLE 13S



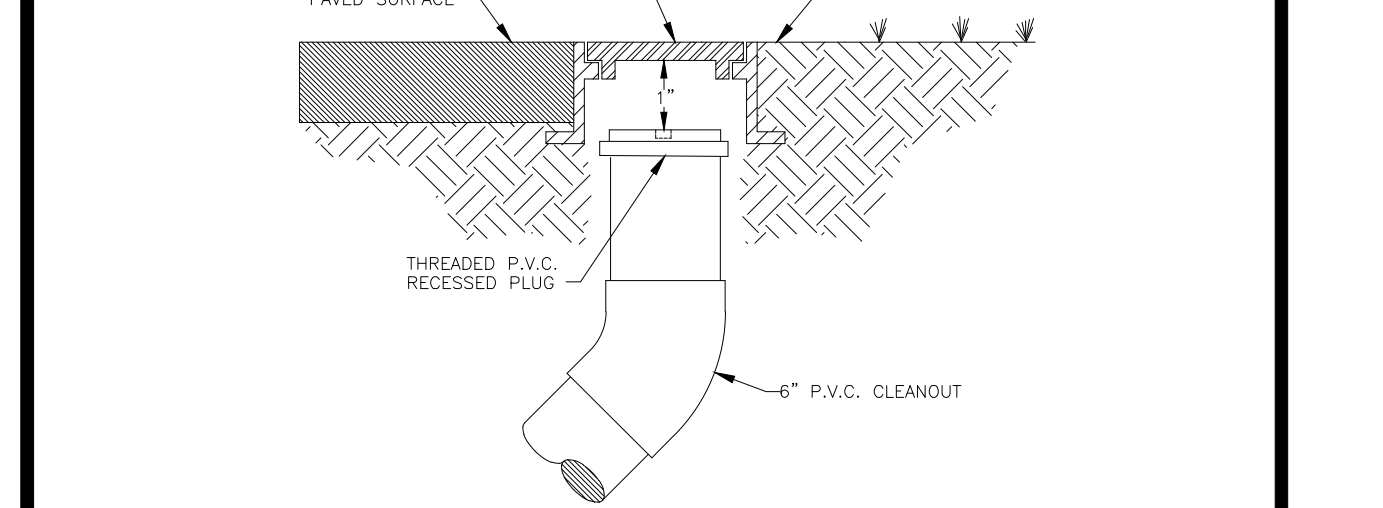
- NOTES:**
- COLLAR IS REQUIRED ONLY WHEN MANHOLE IS OUT OF PAVEMENT.
 - STANDARD FRAME AND COVER SIZE SHALL BE SEVEN INCHES (7"). A 4" FRAME MAY ONLY BE USED WITH PRIOR APPROVAL.
 - A STEEL MANHOLE RISER, APPROVED PRECAST CONCRETE ADJUSTING RINGS OR ADDITIONAL BRICKS MAY BE USED TO ELEVATE EXISTING MANHOLE COVERS TO REQUIRED GRADE (MAX. 4" HEIGHT).
 - COVER SHALL FIT FLUSH WITH THE FRAME WITH THE INFLOW PROTECTOR INSTALLED.

GRAVITY SEWER MANHOLE FRAME & COVER 17S



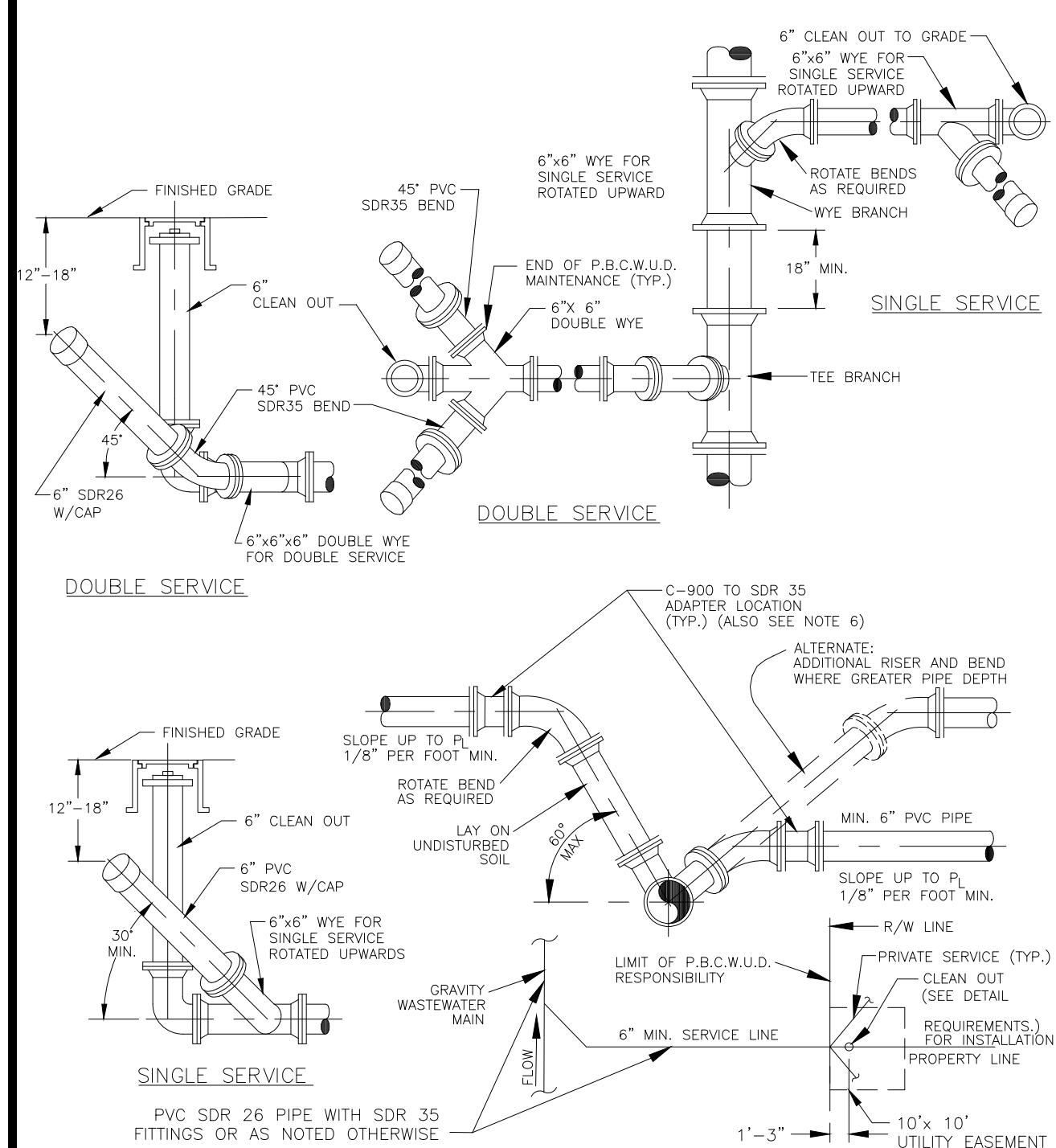
- NOTES:**
- PROPERLY SHAPED INVERT CHANNELS AND SPILLWAYS SHALL BE CONSTRUCTED BETWEEN PIPES WITH DIFFERENT INVERT ELEVATIONS TO PROVIDE SMOOTH FLOWS.
 - SERVICE LATERALS SHALL NOT ENTER MANHOLES UNLESS SPECIFIED ON PLANS AND THEN MUST BE TREATED AS MAINS (ELEVATIONS SHOWN, PRECAST HOLE, FLOW CHANNEL).
 - APPROVED PRECAST POLYPROPYLENE OR FIBER REINFORCED POLYMER (FRP) FLOW CHANNELS WITH INTEGRATED PIPE INVERTS (SEE SEPARATE DETAILS), PRECAST CONCRETE FLOW CHANNELS OR FIELD INSTALLED CONCRETE FLOW CHANNELS ARE REQUIRED.
 - SIDEWALLS OF FLOW CHANNELS SHALL BE AT LEAST HALF OF PIPE HEIGHT AT ALL POINTS.
 - NO INSIDE DROP LARGER THAN 6" SHALL BE ALLOWED WITH 3 OR 4 INVERTS AND MANHOLES WITH A CHANGE OF DIRECTION OF FLOW OF MORE THAN 45 DEGREES.
 - THE FIELD APPLIED CORROSION BARRIER SYSTEM SHALL BE INSTALLED AFTER INVERT CHANNEL CONSTRUCTION UNLESS PRECAST THERMOPLASTIC BASELINER IS USED. THE FIELD APPLIED CORROSION BARRIER MAY NOT BE APPLIED TO THE FLOW CHANNEL.

INVERT FLOW CHANNELS 16S



- NOTES:**
- CLEANOUTS TO BE LOCATED IN GRASS AREA WHENEVER POSSIBLE, MIN. 3" FROM EDGE OF PAVEMENT, BACK OF CURB, EDGE OF DRIVEWAY, LIGHT POLES, TRANSFORMERS, OR POWER POLES.
 - CLEANOUTS SHALL NOT BE INSTALLED IN TRAFFIC LANES OR AREAS UNDER HEAVY TRAFFIC LOADS.
 - THE COVER TO BE MARKED "CS".
 - CLEANOUTS TO BE INSTALLED PRIOR TO WATER METER RELEASE.
 - THE DEVELOPER/PROPERTY OWNER OR ASSIGNEE SHALL BE RESPONSIBLE FOR CLEANOUT INSTALLATION PRIOR TO WATER METER INSTALLATION AS SPECIFIED BY THE DEPARTMENT.
 - A CONCRETE COLLAR MAY BE REQUIRED IF CLEANOUT IS LOCATED BETWEEN DRIVEWAYS. A SPECIAL CONSTRUCTION DETAIL WILL BE REQUIRED.
 - ALONG STREETS WITH ADJACENT NON-EXCLUSIVE UTILITY EASEMENTS, THE CLEANOUTS ENDING PRECISELY WITHIN MAINTENANCE RESPONSIBILITY SHALL BE INSTALLED MIN. 12" MAX. 18" INTO THE EASEMENT.

TYPICAL CLEANOUT INSTALLATION 11S



- NOTES:**
- MIN. 3' AND 5' MAX. DEPTH IS REQUIRED, UNLESS PLANS SHOW OTHERWISE. FOR SERVICE LATERAL WYE AT THE CLEAN OUT ENDING P.B.C.W.U.D. OWNERSHIP AND MAINTENANCE RESPONSIBILITY.
 - CLEAN OUT IS TO BE INSTALLED PER DEPARTMENT STANDARDS PRIOR TO WATER METER INSTALLATION.
 - WASTEWATER MAIN WYE BRANCH TO MATCH MAIN PIPE MATERIAL.
 - CLEAN OUTS DESIGNATING THE END OF THE DEPARTMENT'S MAINTENANCE RESPONSIBILITY SHALL BE LOCATED WITHIN AN UTILITY EASEMENT OR RIGHT-OF-WAY DEDICATED FOR UTILITIES.
 - THE DEVELOPER/PROPERTY OWNER OR ASSIGNEE SHALL BE RESPONSIBLE FOR CLEAN OUT INSTALLATION PRIOR TO WATER METER INSTALLATION AS SPECIFIED BY THE DEPARTMENT.
 - SEE MINIMUM SEPARATION STATEMENT FOR P.V.C. C-900 SDR 18 PIPE MATERIAL REQUIREMENTS AT WASTEWATER LATERAL/POTABLE WATER MAIN CROSSINGS.
 - ALONG STREETS WITH ADJACENT NON-EXCLUSIVE UTILITY EASEMENTS, THE CLEANOUT ENDING PRECISELY WITHIN MAINTENANCE RESPONSIBILITY SHALL BE INSTALLED 1'-3" INTO THE UTILITY EASEMENT.
 - MIN. 3" HORIZONTAL SEPARATION MUST BE MAINTAINED BETWEEN CLEANOUTS AND EDGE OF PAVEMENT, BACK OF CURB, EDGE OF DRIVEWAY, LIGHTPOLES, TRANSFORMERS, POWER POLES.

TYPICAL WASTEWATER SERVICE CONNECTION 12S