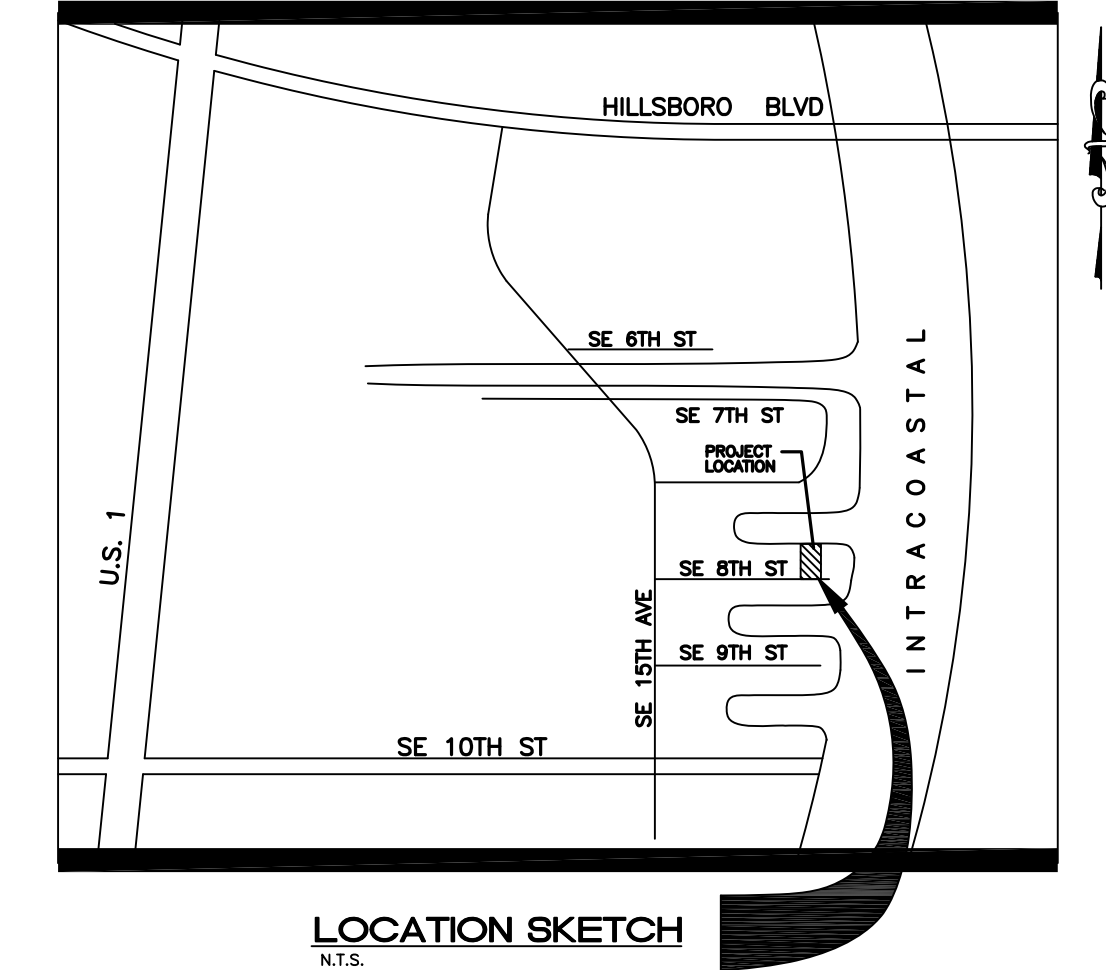
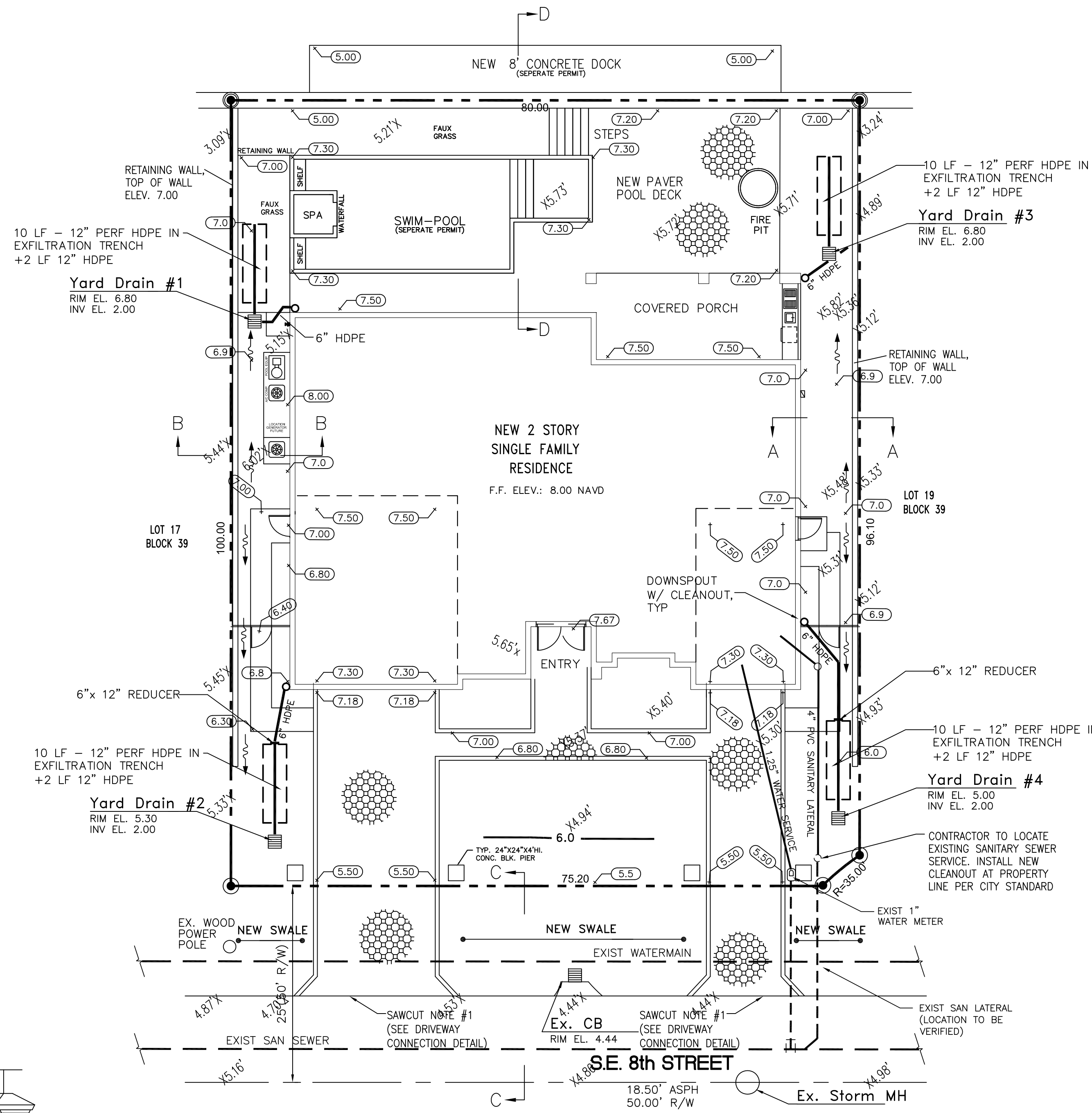


PELICAN WATERWAY
100.00' R/W CANAL



LEGAL DESCRIPTION:
LOT 18, IN BLOCK 38 OF THE COVE 2ND SECTION, ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 33, PAGE 27, OF THE PUBLIC RECORDS OF BROWARD COUNTY, FLORIDA.

- LEGEND:**
- X5.12 EXISTING ELEVATION
 - 6.25 PROPOSED ELEVATION
 - RUNOFF FLOW
 - [Pattern] PROPOSED BRICK PAVERS
 - [Pattern] PROPOSED CONCRETE SIDEWALK
 - [Pattern] EXISTING CONCRETE
 - TBR TO BE REMOVED
 - TBV TO BE VERIFIED
 - 7.0 SWALE CONTOUR
 - - - - - PROPERTY LINE
 - - - - - ELEC OVERHEAD WIRES

AREA COVERAGES:

BUILDING AREA	= 2,979 SF = 0.068 ACRE	37.2%
POOL DECK AND PAVEMENT AREA	= 2,888 SF = 0.066 ACRE	36.1%
PERVIOUS AREA	= 2,123 SF = 0.049 ACRE	26.6%
TOTAL AREA	= 7,990 SF = 0.183 ACRE	100%

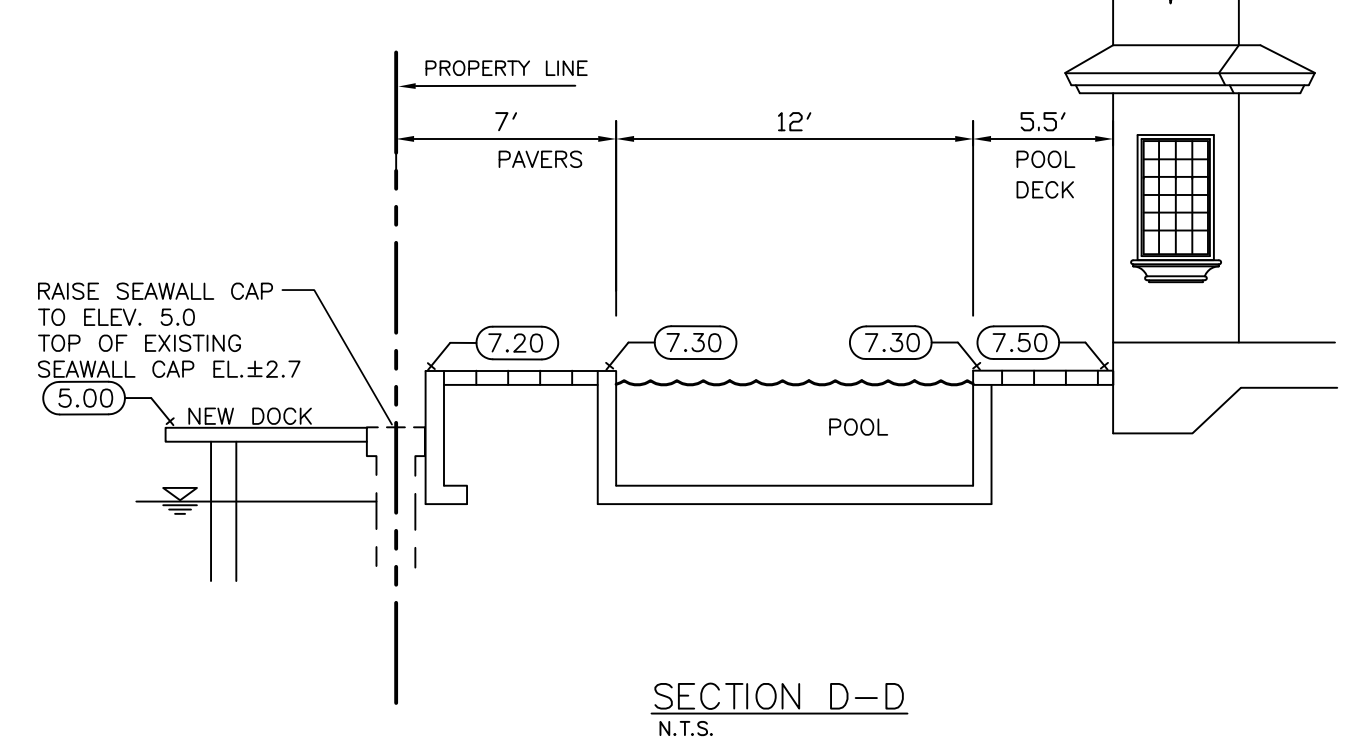
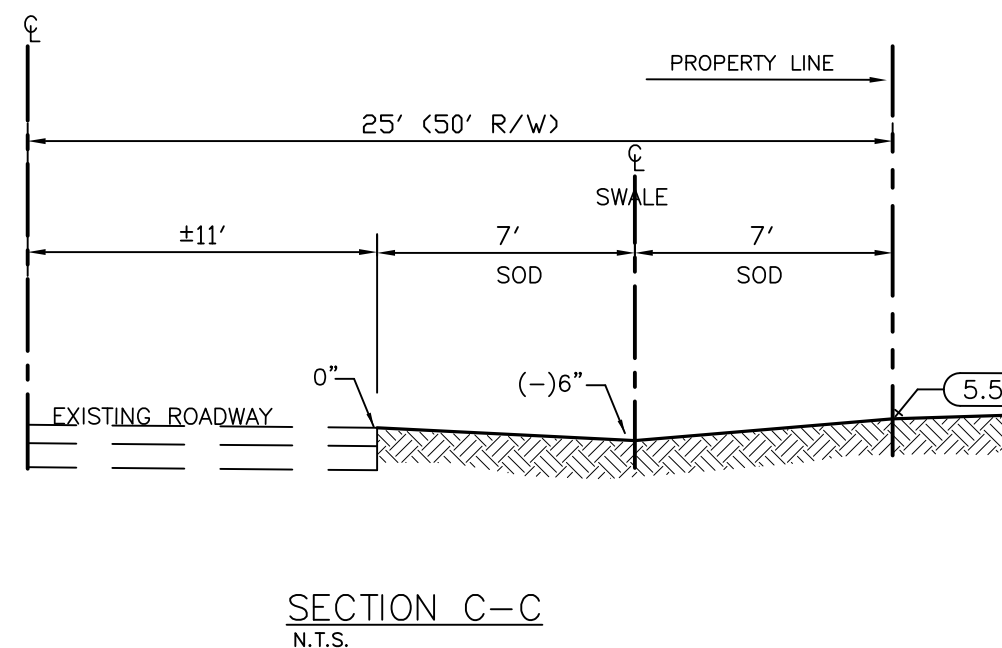
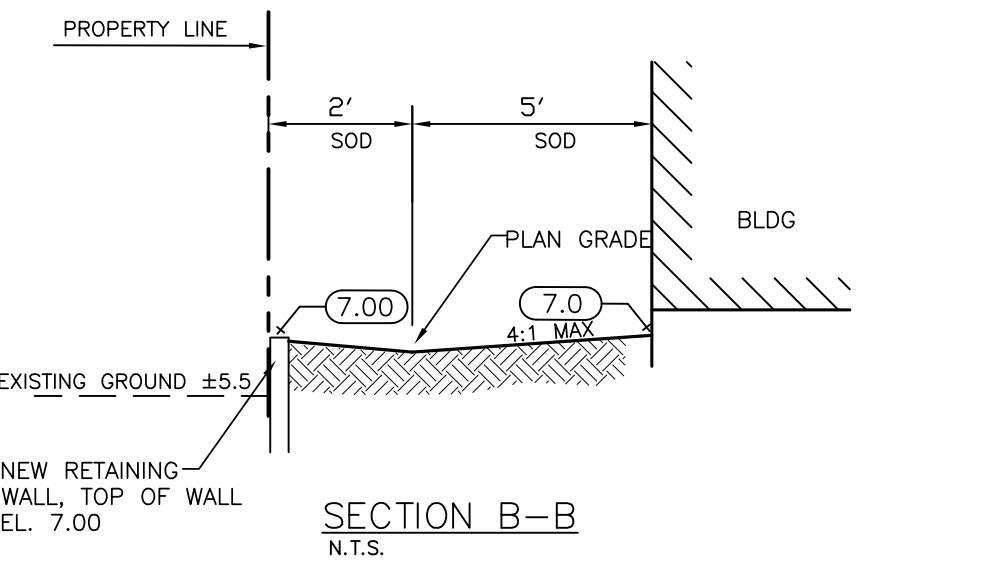
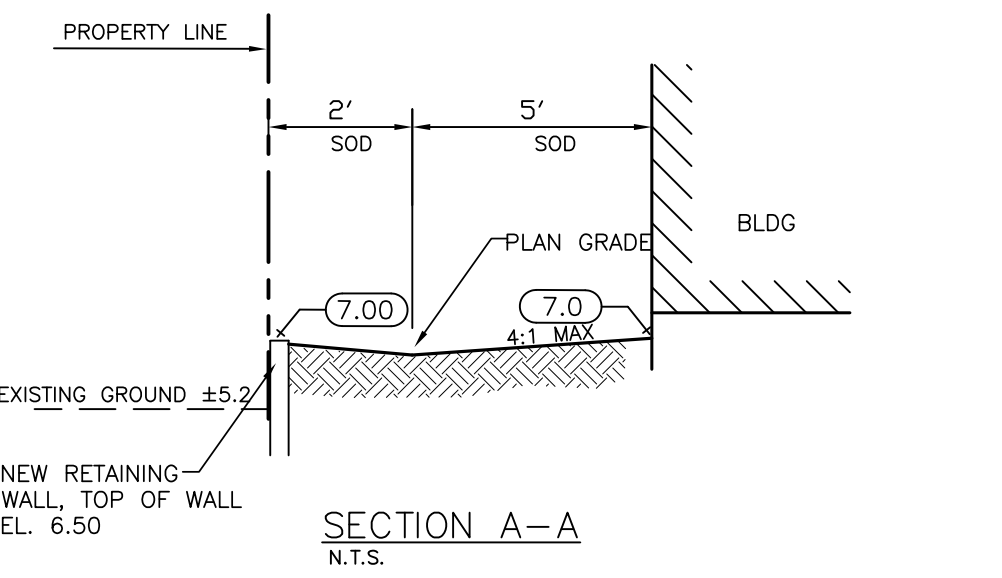
- NOTES:**
- LOCAL DRAINAGE DISTRICT: BROWARD Co. DEPT. OF PLANNING AND ENVIRONMENTAL PROTECTION
 - BROWARD COUNTY WET SEASON WATER TABLE = 1.50 NAVD
 - 10 YEAR - 1 DAY RAINFALL = 11 INCHES
 - 25 YEAR - 1 DAY RAINFALL = 13.5 INCHES
 - 100 YEAR - 1 DAY RAINFALL = 18 INCHES
 - FUTURE FEMA DESIGN FLOOD ELEV. 7.00 NAVD

- SAWCUT NOTES:**
- SAWCUT EXISTING ASPHALT PAVEMENT. MATCH NEW PAVR GRADE TO EXISTING ASPHALT GRADE.
 - SAWCUT EXISTING CONCRETE SIDEWALK. MATCH NEW CONCRETE SIDEWALK GRADE TO EXISTING SIDEWALK GRADE.

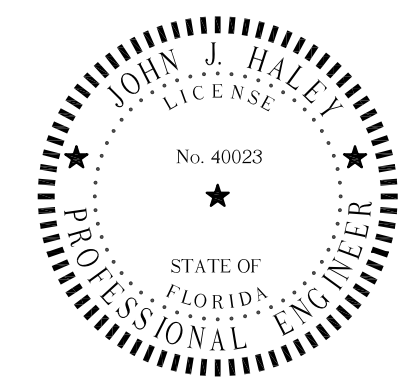
NOTES:

FLOOD ZONE : AE/X
BASE FLOOD ELEVATION : 5.0 NAVD
CONTROL PANEL NUMBER : 12011-C-0187-H
DATE : 8-18-14
PRELIMINARY 2019/2021 FEMA BASE FLOOD ELEV. 7.0 NAVD

- CONSTRUCTION NOTES:**
- CONTRACTOR TO FIELD LOCATE SIZE, DEPTH, MATERIAL AND LOCATION OF EXISTING WATER SERVICE TO BUILDING PRIOR TO CONSTRUCTION. NOTIFY ENGINEER WITH INFORMATION.
 - CONTRACTOR TO FIELD LOCATE SIZE, DEPTH, MATERIAL AND LOCATION OF EXISTING SANITARY SEWER SERVICE TO BUILDING PRIOR TO CONSTRUCTION. NOTIFY ENGINEER WITH INFORMATION.
 - EXISTING TOPOGRAPHIC INFORMATION PROVIDED BY BASELINE LAND SURVEYOR TO ALL UTILITY COMPANIES WITH FACILITIES IN THE AREA.
 - ALL CONSTRUCTION SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE CITY OF DEERFIELD BEACH ENGINEERING.
 - PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL GIVE TIMELY NOTIFICATION TO ALL UTILITY COMPANIES WITH FACILITIES IN THE AREA.
 - THE LOCATION OF EXISTING FACILITIES WERE PLOTTED FROM AVAILABLE RECORDS. THE CONTRACTOR SHALL FIELD LOCATE ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
 - THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO SAFEGUARD ALL EXISTING STRUCTURES, UTILITIES, AND SURVEY MARKERS.
 - ALL SIDEWALKS AND PATIOS SHALL BE SLOPED AWAY FROM HOUSE.
 - MAXIMUM GRASS SLOPES SHALL NOT EXCEED 4:1.
 - CONTRACTOR SHALL COORDINATE GRADING PLAN WITH LANDSCAPE ARCHITECT.
 - REMOVE ALL ORGANIC AND DELERIOUS MATERIAL BETWEEN THE EDGE OF PAVEMENT AND RIGHT OF WAY LINE (14" SODDED SWALE). NO MATERIAL OF F.D.O.T. CLASS A-5, A-7 OR A-8 SHALL BE ALLOWED IN THE RIGHT OF WAY.
 - ALL ELEVATIONS SHOWN ARE BASED ON NORTH AMERICAN DATUM OF 1988.



NOTE : OWNER SHALL SUBMIT FINAL SURVEY TO THE CITY WITH SUFFICIENT TOPOGRAPHY TO VERIFY CONFORMANCE TO DESIGN



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Designed J.J.H.
Drawn E.L.H.
Checked J.J.H.

NO.	DATE	REVISION	BY

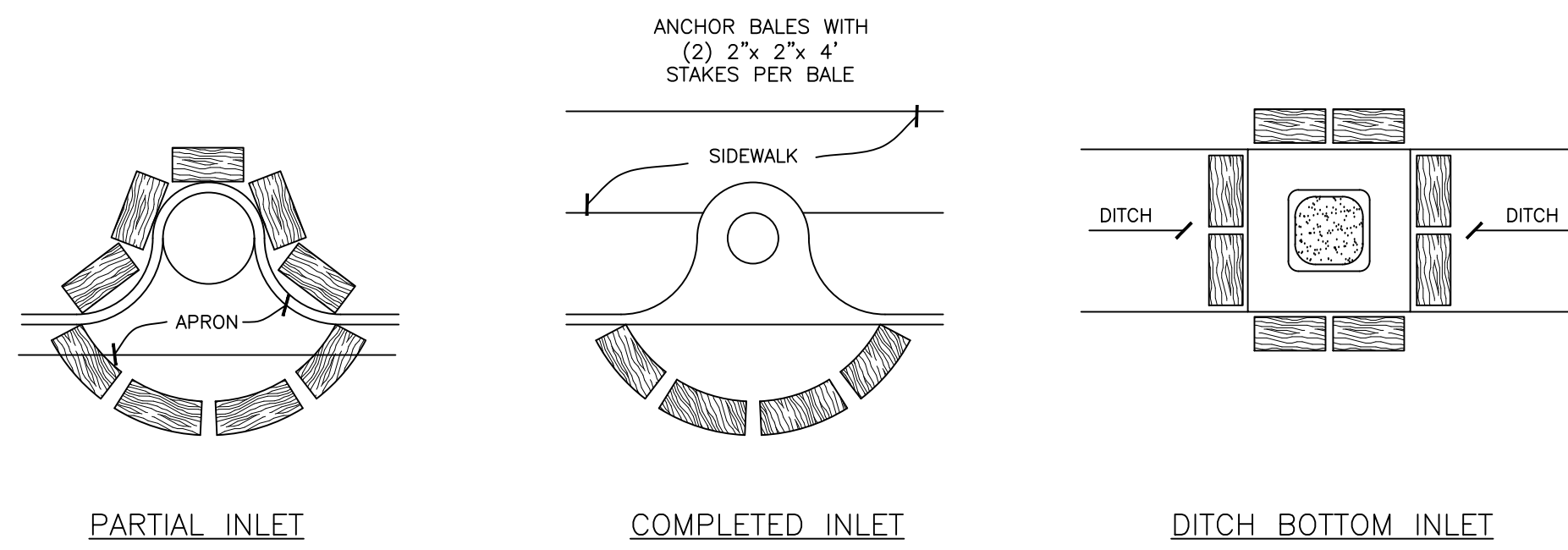
HALEY ENGINEERING, INC.
CIVIL ENGINEERING SERVICES.
1680 SE 4th Street - Deerfield Beach, Fla. 33441
Phone: (954) 260-6194
Email: johnjhaley@comcast.net
F.B.P.E. Authorization No. 9463

OSTROKOLOWICZ RESIDENCE
1579 SE 8TH STREET
DEERFIELD BEACH, FLORIDA

PAVING AND DRAINAGE PLAN

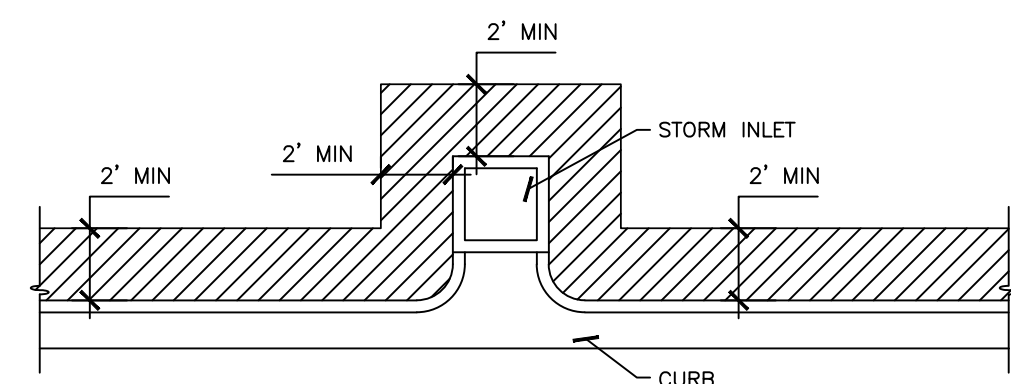
APPROVED: _____
DATE: _____
JOHN J. HALEY, P.E.
REGISTERED ENGINEER NO. 40023
STATE OF FLORIDA

SCALE: 1" = 10'
PROJECT NUMBER: 21-2815
1 / 4



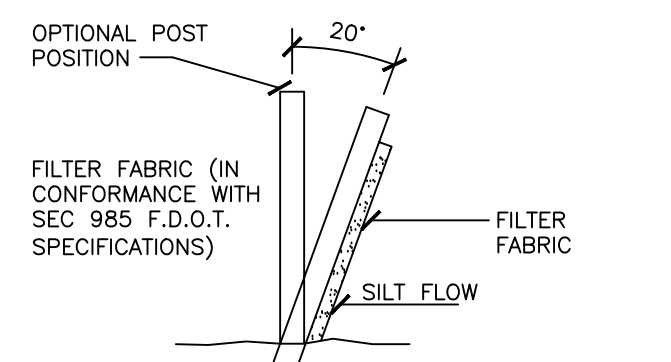
PROTECTION AROUND INLETS OR SIMILAR STRUCTURES

FIGURE 6



SOD ALONG CURB AND AROUND INLET

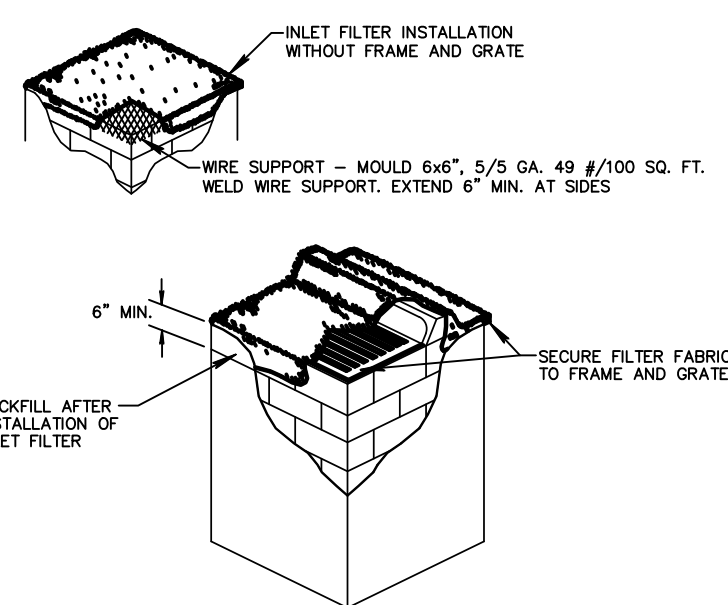
FIGURE 9



ELEVATION

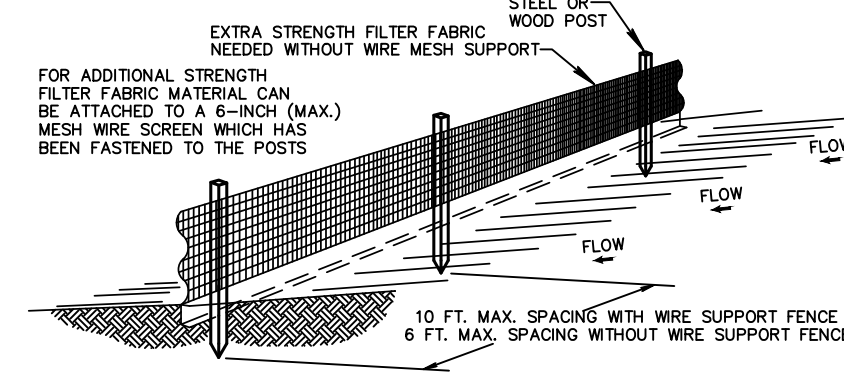
TYPICAL SILT FENCE

FIGURE 2



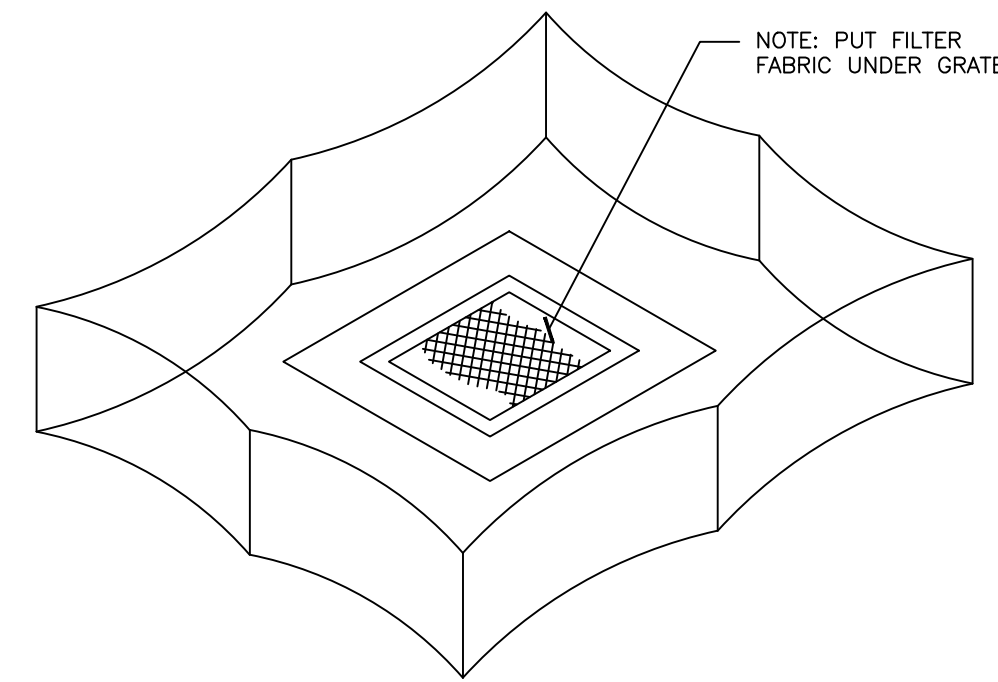
NOTES:
 1. CONTRACTOR IS TO CLEAN INLET FILTER AFTER EVERY STORM.
 2. CONTRACTOR TO REMOVE FABRIC JUST PRIOR TO PAVING.
 A SEDIMENT TRAP WILL BE EXCAVATED BEHIND THE CURB AT THE INLET. THE BASIN SHALL BE AT LEAST 12 TO 14 INCHES IN DEPTH, APPROXIMATELY 36 INCHES IN WIDTH, AND APPROXIMATELY 7 TO 10 FEET 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.

INLET FILTER DETAIL



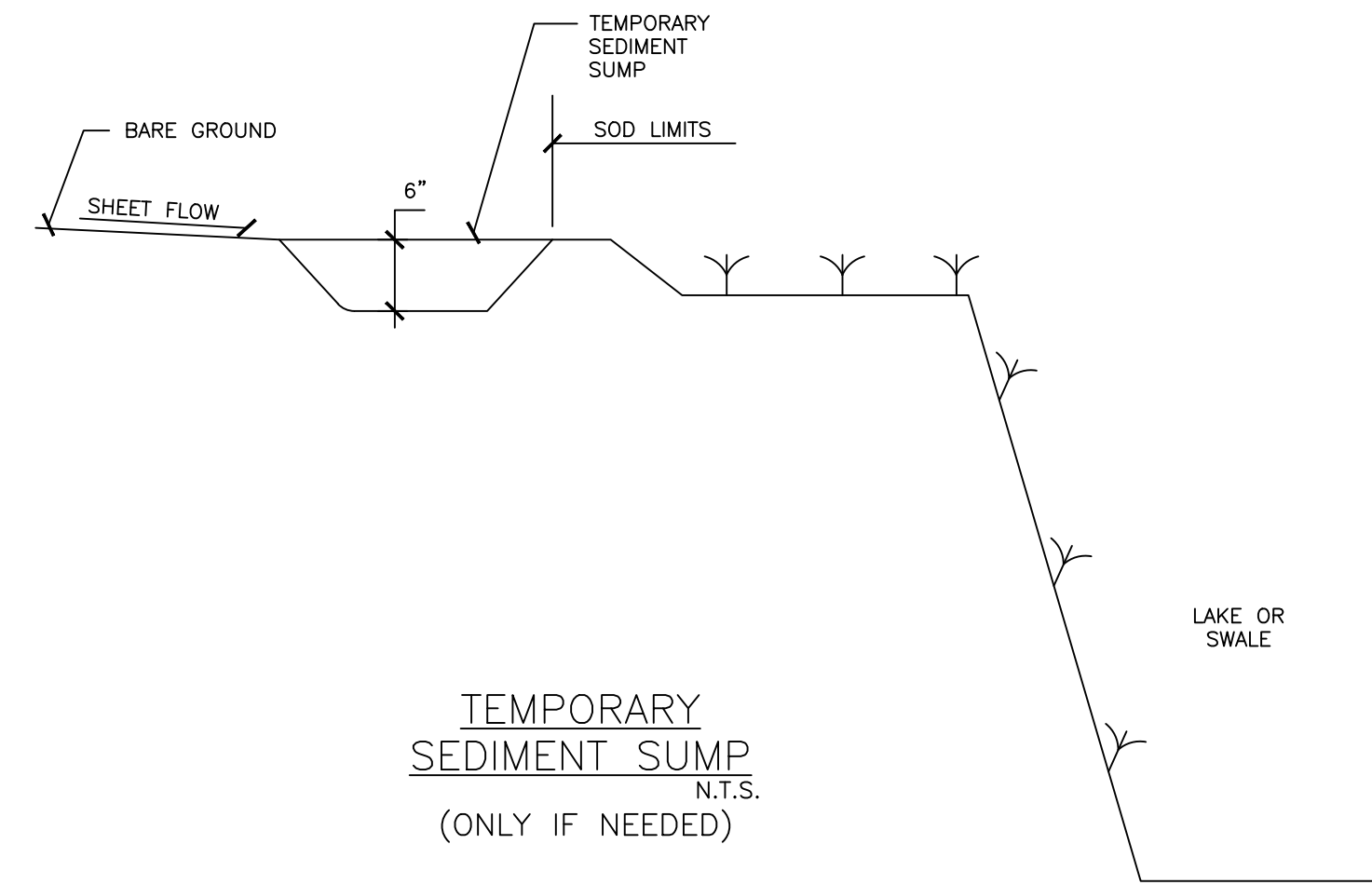
NOTES:
 1. THE HEIGHT OF A SILT FENCE SHALL NOT EXCEED 36 INCHES (90 CM).
 2. THE FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL, CUT TO THE LENGTH OF THE BARRIER TO AVOID THE USE OF JOINTS.
 3. POSTS SHALL BE SPACED A MAXIMUM OF 10 FEET (3 M) APART AT THE BARRIER LOCATION AND DRIVEN SECURELY INTO THE GROUND A MINIMUM OF 12 INCHES (30 CM). WHEN EXTRA STRENGTH FABRIC IS USED WITHOUT THE WIRE SUPPORT FENCE, POST SPACING SHALL NOT EXCEED 6 FEET (1.8 M).
 4. A TRENCH SHALL BE EXCAVATED APPROXIMATELY 4 INCHES (10 CM) WIDE AND 4 INCHES (10 CM) DEEP ALONG THE LINE OF POSTS AND UPSLOPE FROM THE BARRIER.
 5. WHEN STANDARD STRENGTH FILTER FABRIC IS USED, A WIRE MESH SUPPORT FENCE SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY DUTY WIRE STAPLES AT LEAST 11 INCH (28 MM) LONG. THE WIRE OR HOOD RINGS. THE WIRE SHALL EXTEND INTO THE TRENCH A MINIMUM OF 2 INCHES (5 CM) AND SHALL NOT EXTEND MORE THAN 36 INCHES (90 CM) ABOVE THE ORIGINAL GROUND SURFACE.
 6. THE STANDARD STRENGTH FILTER FABRIC SHALL BE STAPLED OR WIRED TO THE FENCE, AND 8 INCHES (20 CM) OF THE FABRIC SHALL BE EXTENDED INTO THE TRENCH. THE FABRIC SHALL NOT EXTEND MORE THAN 36 INCHES (90 CM) ABOVE THE ORIGINAL GROUND SURFACE.
 7. THE TRENCH SHALL BE BACKFILLED AND THE SOIL COMPACTED OVER THE FILTER FABRIC.

SILT FENCE INSTALLATION DETAIL D 9.1a



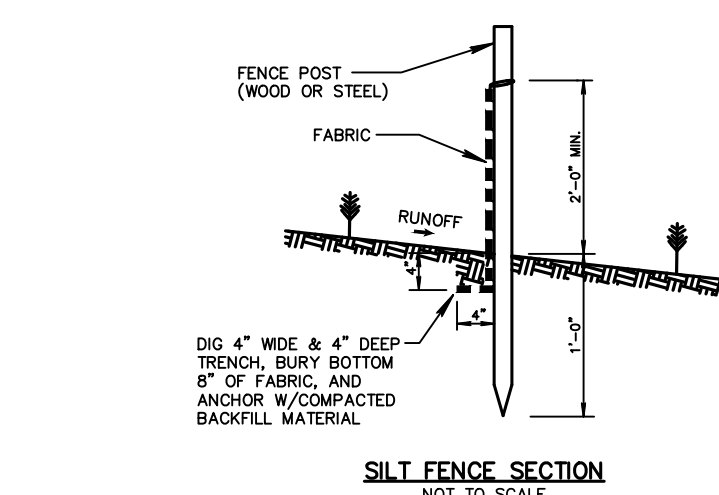
STAKED SILK BARRIER OR SILT FENCE PROTECTION AROUND DITCH BOTTOM INLETS

FIGURE 7

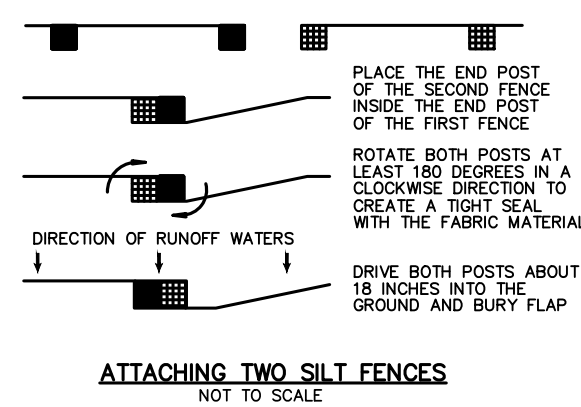


TEMPORARY SEDIMENT SUMP (ONLY IF NEEDED)

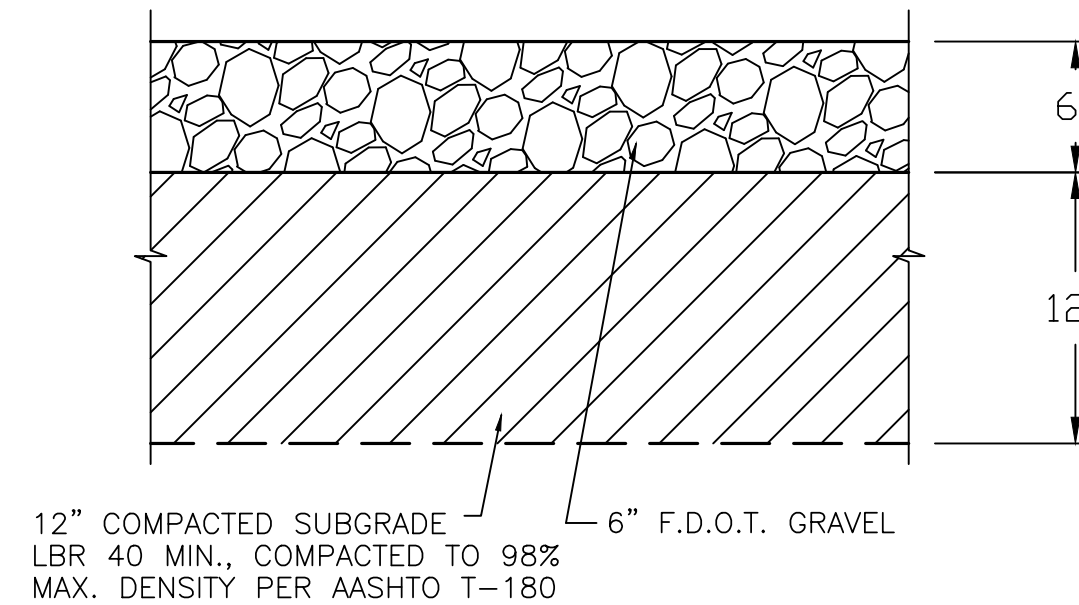
FIGURE 10



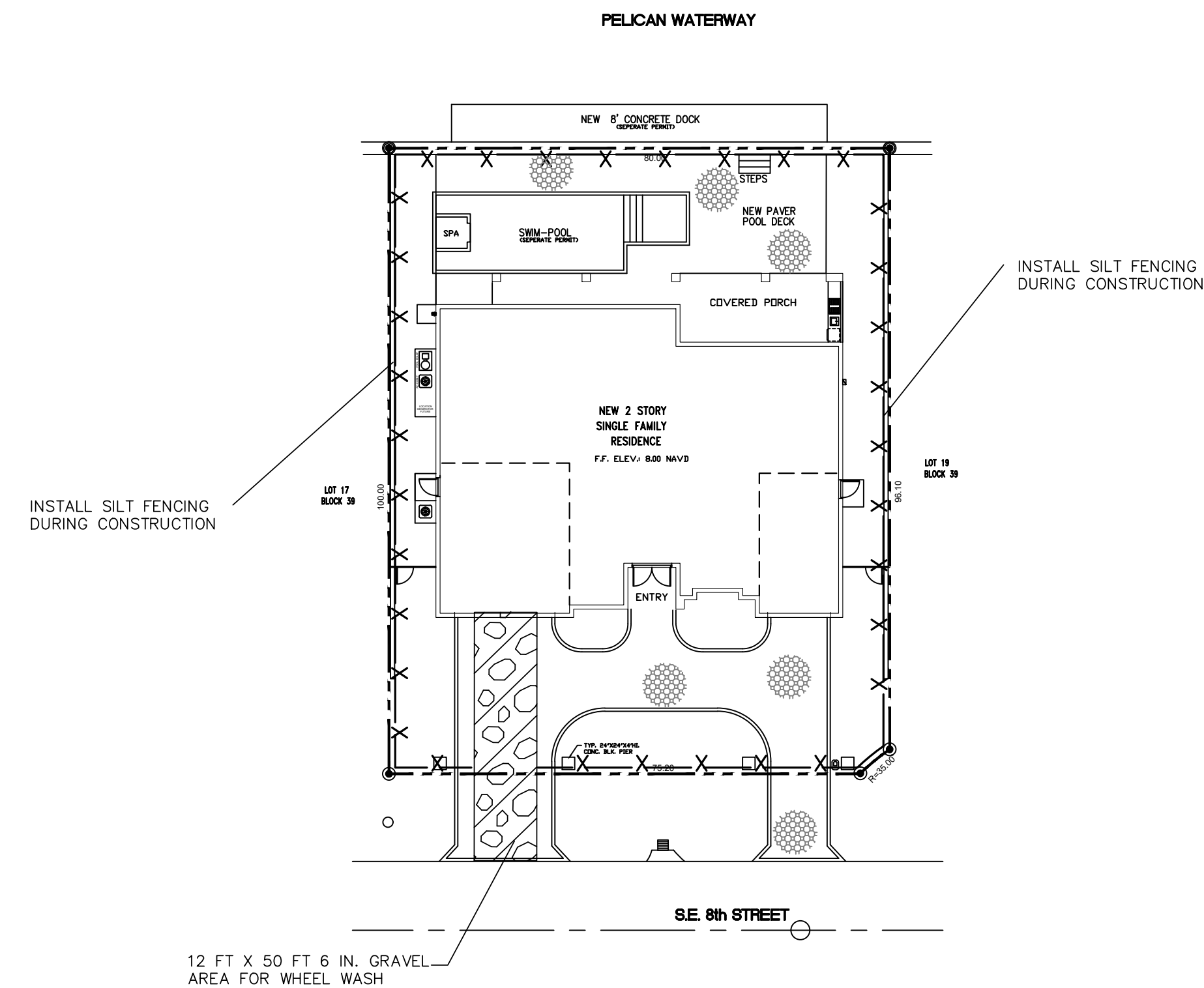
SILT FENCE SECTION



ATTACHING TWO SILT FENCES



CONSTRUCTION ENTRANCE SECTION



BEST MANAGEMENT PRACTICES PLAN

SCALE 1"=20'-0"

BEST MANAGEMENT PRACTICES

SECTION A GENERAL EROSION CONTROL

- A.1 General erosion control BMP's shall be employed to minimize soil erosion and potential lake slope cave-ins. While the various techniques required will be site and plan specific, they should be employed as soon as possible during construction activities.
- A.2 Cleared site development areas not continually scheduled for construction activities shall be covered with hay or overseeded and periodically watered sufficient to stabilize the temporary groundcover.
- A.3 Slopes of banks retention/detention ponds shall be constructed not steeper than 4H:1V from top of bank to two feet below normal water level as shown in Figure 5.
- A.4 All grass slopes constructed steeper than 4H:1V shall be sodded as soon as practical after their construction as shown in Figure 8.
- A.5 Sod shall be placed for a 3-foot wide strip adjoining all curbing and around all inlets as shown in Figure 9. Sod shall be placed before silt barriers, shown in Figure 6, are removed.
- A.6 Where required to prevent erosion from sheet flow across bare ground from entering a lake or swale, a temporary sediment sump shall be constructed as shown in Figure 10. The temporary sediment sump shall remain in place until vegetation is established on the ground draining to the sump.

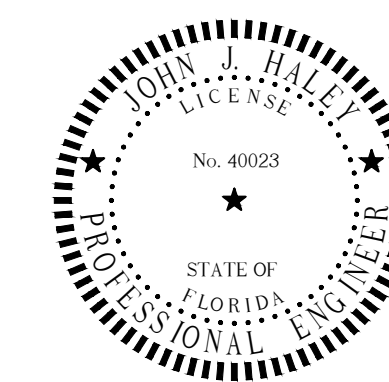
SECTION B PROTECTION OF SURFACE WATER QUALITY DURING AND AFTER CONSTRUCTION

- B.1 Surface water quality shall be maintained by employing the following BMP's in the construction planning and construction of all improvements.
- B.2 Where practical, stormwater shall be conveyed by swales. Swales shall be constructed as shown in Figure 5.
- B.3 Erosion control measures shall be employed to minimize turbidity of surface waters located downstream of any construction activity. While the various measures required will be site specific, they shall be employed as needed in accordance with the following.
 - a. In general erosion shall be controlled at the furthest practical upstream location.
 - b. Stormwater inlets shall be protected during construction as shown in Figures 6 and 7. Protection measures shall be employed as soon as practical during the various stages of inlet construction. Silt barriers shall remain in place until sodding around inlets is complete.

- B.4 Heavy construction equipment parking and maintenance areas shall be designed to prevent oil, grease and lubricants from entering site drainage features including stormwater collection and treatment systems. Contractors shall provide broad dikes, hay bales or silt screens around, and sediment sumps within, such areas as required to contain spills of oil, grease or lubricants. Contractors shall have available, and shall use absorbent filter pads to clean up spills as soon as possible after occurrence.
- B.5 Silt barriers, any silt which accumulates behind the barriers, and any fill used to anchor the barriers shall be removed promptly after the end of the maintenance period specified for the barriers.

SECTION C CONTROL OF WIND EROSION

- C.1 Wind erosion shall be controlled by employing the following methods as necessary and appropriate:
 - a. Bare earth areas shall be watered during construction as necessary to minimize the transport of fugitive dust. It may be necessary to limit construction vehicle speed if bare earth has not been effectively watered. In no case shall fugitive dust be allowed to leave the site under construction.
 - b. As soon as practical after completion of construction, bare earth areas shall be vegetated.
 - c. At any time both during and after site construction that watering and/or vegetation are not effective in controlling wind erosion and/or transport of fugitive dust, other methods as are necessary for such control shall be employed. These methods may include erection of dust control fences. If required, dust control fences shall be constructed in accordance with the detail for a silt fence shown in Figure 2, except the minimum height shall be 4 feet.



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Designed J.J.H.
 Drawn E.L.H.
 Checked J.J.H.

NO.	DATE	REVISION	BY

HALEY ENGINEERING, INC.
 CIVIL ENGINEERING SERVICES.
 1680 SE 4th Street - Deerfield Beach, Fla. 33441
 Phone: (954) 260-6194
 Email: johnhaley@comcast.net
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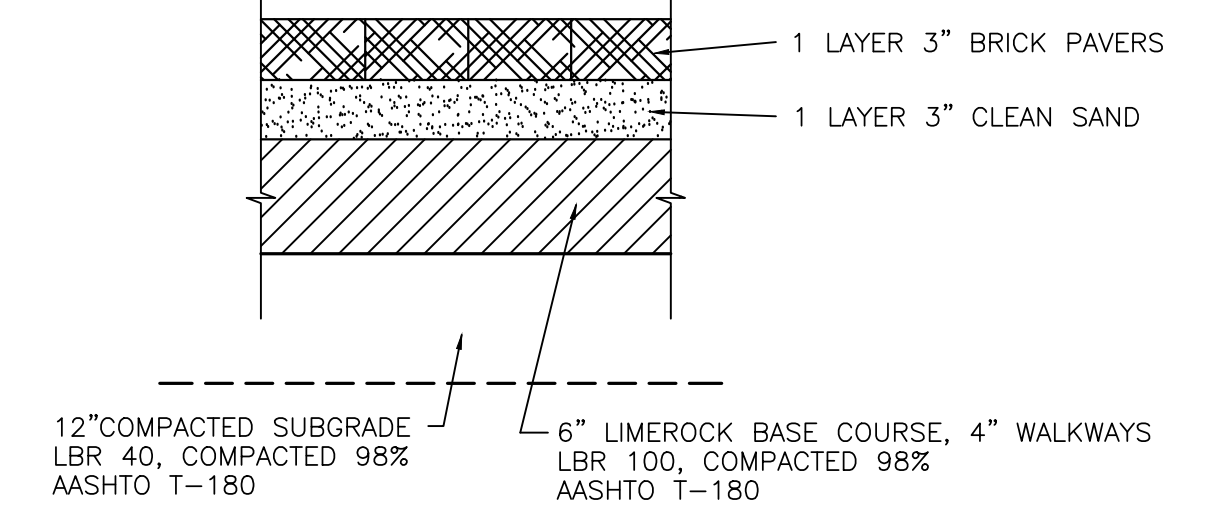
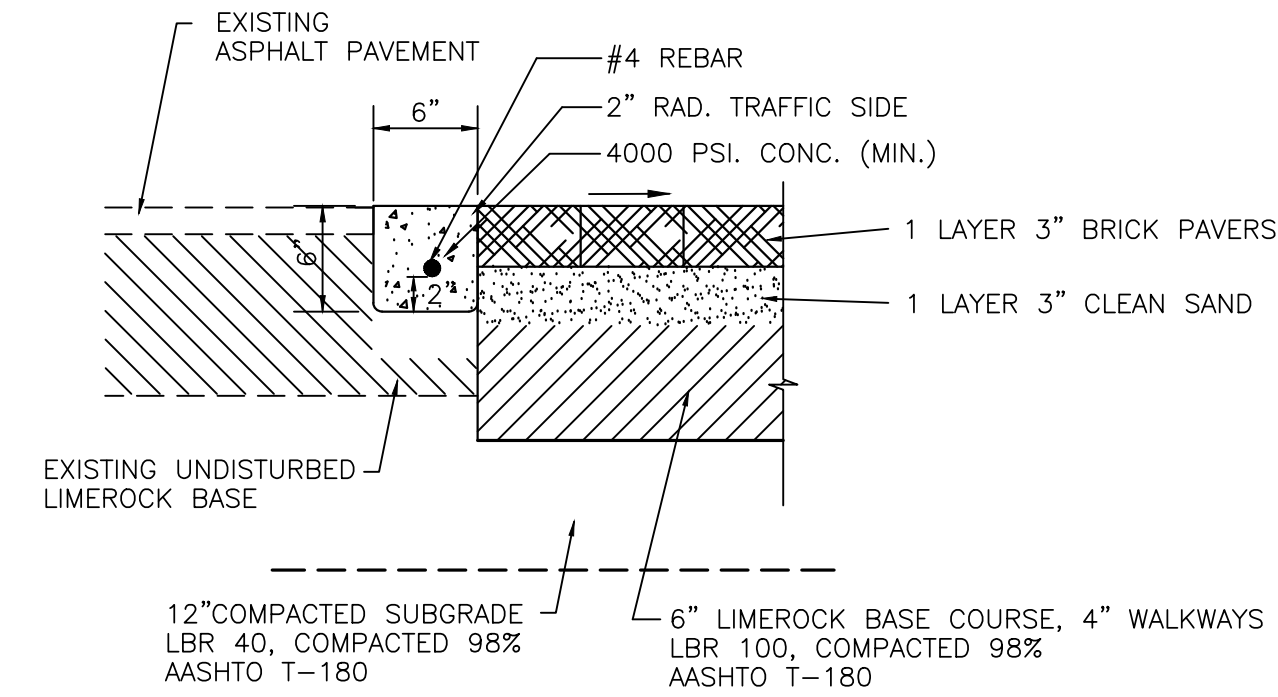
OSTROKOLOWICZ RESIDENCE
 1579 SE 8TH STREET
 DEERFIELD BEACH, FLORIDA

BEST MANAGEMENT PRACTICES DETAILS

APPROVED: _____ DATE: _____
 JOHN J. HALEY, P.E.
 REGISTERED ENGINEER NO. 40023
 STATE OF FLORIDA

SCALE PROJECT NUMBER
 N.T.S. 21-2815

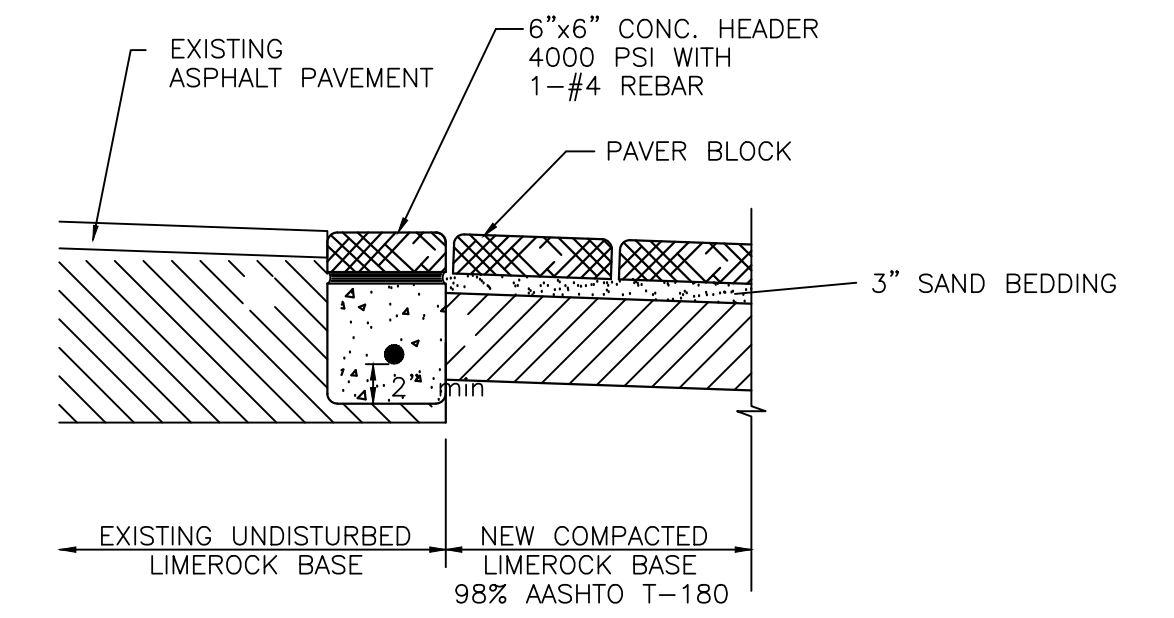
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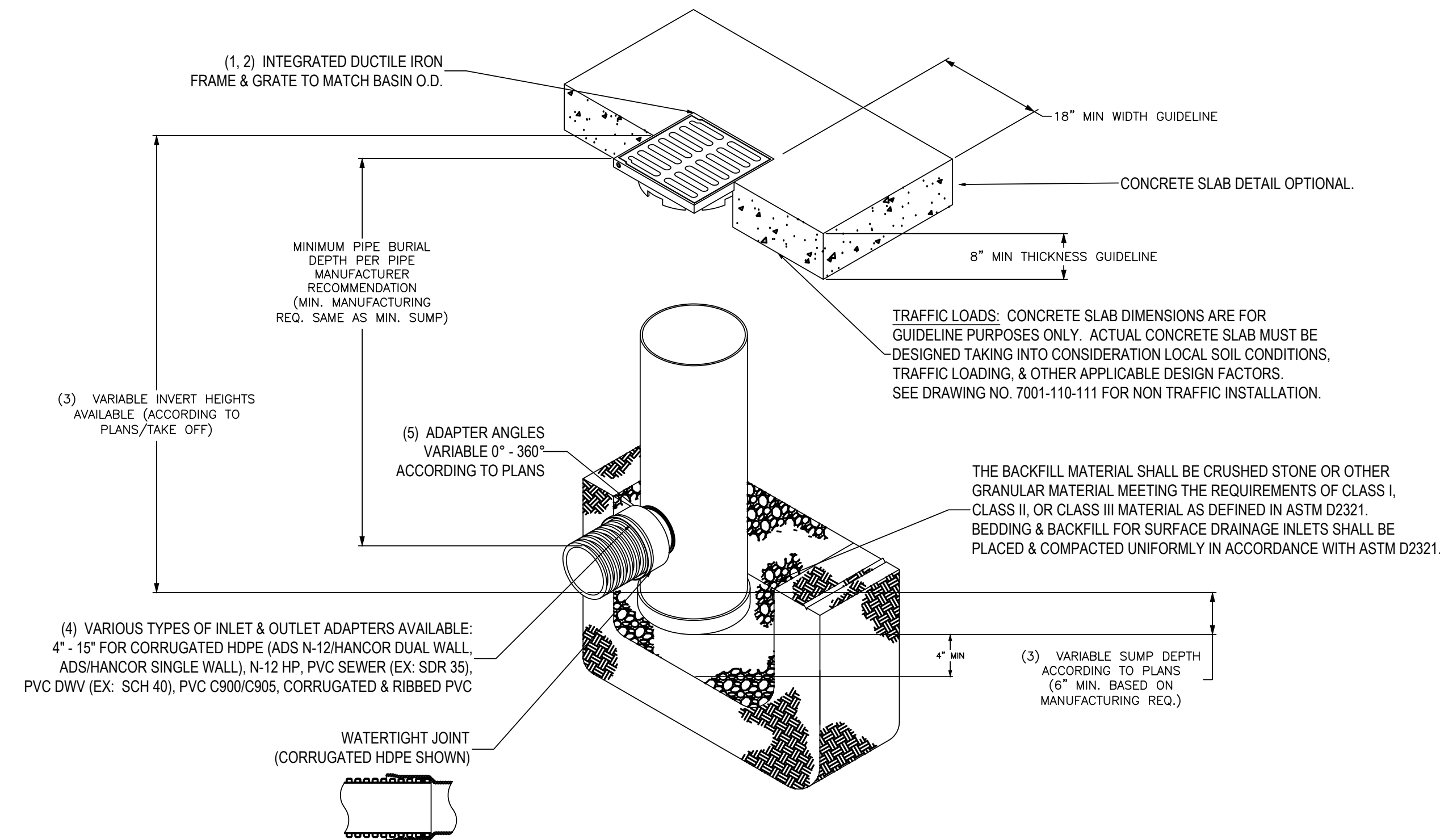
SECTION A-A
* PAVER BLOCK SECTION WITH HEADER CURB

- NOTES:
1. SIDEWALK SHALL BE CONCRETE. CONFIRM TO CITY CONSTRUCTION STANDARDS AND RUN CONTINUOUSLY THROUGH DECORATIVE DRIVEWAYS. A DETERMINATION ON IF A NEW SIDEWALK IS REQUIRED WILL BE MADE AT THE TIME OF PERMIT REVIEW.
 2. ALL PAVER BLOCK MATERIALS SHALL HAVE ADEQUATE COMPRESSIVE STRENGTH, WATER ABSORPTION RATE, SKID RESISTANCE AND BE FREE OF CRACKS, SHIPS AND VOIDS. CONCRETE PAVERS SHALL CONFORM TO ASTM C-936. CLAY PAVERS SHALL BE HARD BURNED AND SHALL CONFORM TO ASTM C-902. THE MINIMUM PAVER THICKNESS SHALL BE 3 1/2 INCHES. DEVIATIONS FROM THESE STANDARDS MAY BE APPROVED BY THE CITY ENGINEER IF SUFFICIENT EVIDENCE IS PROVIDED TO DEMONSTRATE THAT PUBLIC SAFETY AND THE INTEGRITY OF THE RIGHT-OF-WAY WOULD NOT BE COMPROMISED.
 3. BEDDING SAND SHALL BE GRANULAR AND FINELY GRADED, TO THE SATISFACTION OF THE CITY INSPECTOR. LIMEROCK BASE SHALL BE BROUGHT UP TO GRADE BEFORE BEDDING SAND IS INSTALLED. BEDDING SAND SHALL NOT BE USED TO COMPENSATE FOR AN UNEVEN LIMEROCK BASE. PAVER GRADES SHALL BE SLOPED 2% FOR DRAINAGE.
 4. PAVER JOINTS SHALL BE 1/8" WIDE, WITH A 1/8" TOLERANCE. ALL JOINTS SHALL BE SWEEPED WITH DRY SAND UP TO THE PAVER SURFACE AND COMPACTED WITH A VIBRATORY PLATE COMPACTOR. IF NEEDED, THIS PROCESS SHALL BE REPEATED TO ATTAIN DESIRED COMPACTION. PAVERS SHALL BE PROTECTED FROM CHIPPING AND OTHER DAMAGE DURING THE COMPACTION PROCESS.
 5. ALL MATERIALS, WORKMANSHIP AND RESTORATION OF FEATURES IN THE RIGHT-OF-WAY SHALL BE TO THE SATISFACTION OF THE CITY INSPECTOR. MATERIAL CERTIFICATIONS, SAMPLES, SHOP DRAWINGS AND DENSITY TESTS MAY BE REQUIRED BY THE CITY INSPECTOR FOR VERIFICATION.

PAVER BLOCK SECTION



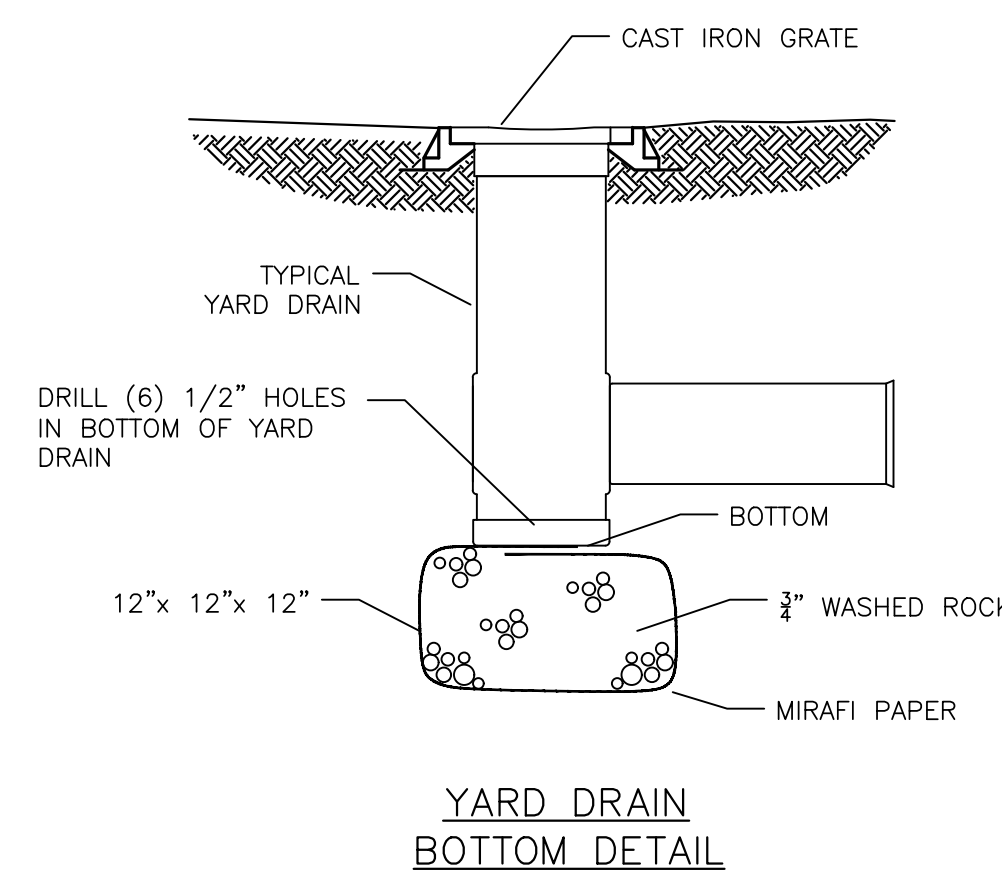
* ALTERNATE SECTION A-A



1. GRATES/SOLID COVER SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05, WITH THE EXCEPTION OF THE BRONZE GRATE.
2. FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
3. DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-065.
4. DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL, ADHANCOR SINGLE WALL), N-12 HP, PVC SEWER (EX. SDR 35), PVC DWV (EX. SCH 40), PVC C900/C905, CORRUGATED & RIBBED PVC N-12 HP, & PVC SEWER.
5. ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.

GRATE OPTIONS	LOAD RATING	PART #	DRAWING #
PEDESTRIAN	MEETS H-10	1599CGP	7001-110-207
STANDARD	MEETS H-20	1599CGS	7001-110-208
SOLID COVER	MEETS H-20	1599CGC	7001-110-209
PEDESTRIAN BRONZE	N/A	1599CGPB	7001-110-210
DOME	N/A	1599CGD	7001-110-211
DROP IN GRATE	LIGHT DUTY	1501DI	7001-110-073

NYOPLAST 12" DRAIN BASIN



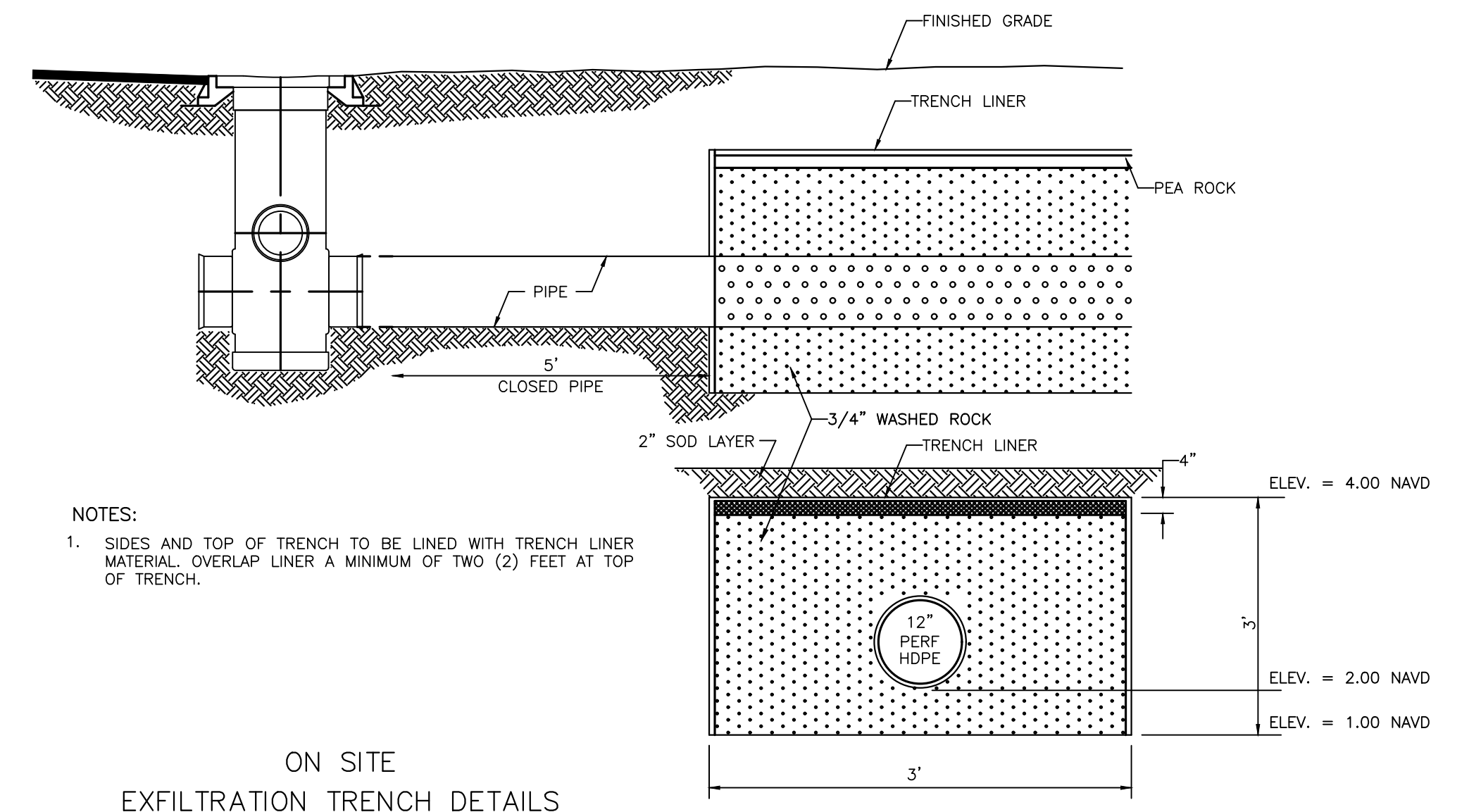
Section 2721
Engineered Surface Drainage Products

GENERAL
PVC surface drainage inlets shall include the drain basin type as indicated on the contract drawing and referenced within the contract specifications. The ductile iron grates for each of these fittings are to be considered an integral part of the surface drainage inlet and shall be furnished by the same manufacturer. The surface drainage inlets shall be as manufactured by Nyloplast a division of Advanced Drainage Systems, Inc., or prior approved equal.

MATERIALS
The drain basins required for this contract shall be manufactured from PVC pipe stock, utilizing a thermforming process to reform the pipe stock to the specified configuration. The drainage pipe connection stubs shall be manufactured from PVC pipe stock and formed to provide a watertight connection with the specified pipe system. This joint tightness shall conform to ASTM D3212 for joints for drain and sewer plastic pipe using flexible elastomeric seals. The flexible elastomeric seals shall conform to ASTM F477. The pipe bell spigot shall be joined to the main body of the drain basin or catch basin. The raw material used to manufacture the pipe stock that is used to manufacture the main body and pipe stubs of the surface drainage inlets shall conform to ASTM D1784 cell class 12454.

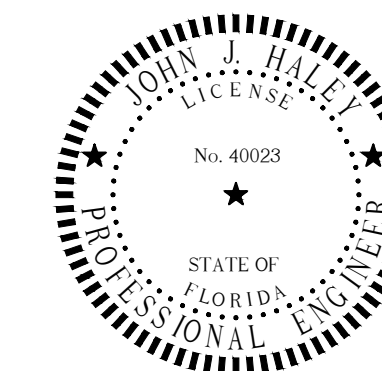
The grates and frames furnished for all surface drainage inlets shall be ductile iron for sizes 8", 10", 12", 15", 18", 24" and 30" and shall be made specifically for each basin so as to provide a round bottom flange that closely matches the diameter of the surface drainage inlet. Grates for drain basins shall be capable of supporting various wheel loads as specified by Nyloplast. 12" and 15" square grates will be hinged to the frame using pins. Ductile iron used in the manufacture of the castings shall conform to ASTM A536 grade 70-50-05. Grates and covers shall be provided painted black.

INSTALLATION
The specified PVC surface drainage inlet shall be installed using conventional flexible pipe backfill materials and procedures. The backfill material shall be crushed stone or other granular material meeting the requirements of class 1, class 2, or class 3 material as defined in ASTM D2321. Bedding and backfill for surface drainage inlets shall be well placed and compacted uniformly in accordance with ASTM D2321. The drain basin body will be cut at the time of the final grade. No brick, stone or concrete block will be required to set the grate to the final grade height. For load rated installations, a concrete slab shall be poured under and around the grate and frame. The concrete slab must be designed taking into consideration local soil conditions, traffic loading, and other applicable design factors. For other installation considerations such as migration of fines, ground water, and soft foundations refer to ASTM D2321 guidelines.



- NOTES:
1. SIDES AND TOP OF TRENCH TO BE LINED WITH TRENCH LINER MATERIAL. OVERLAP LINER A MINIMUM OF TWO (2) FEET AT TOP OF TRENCH.

ON SITE
EXFILTRATION TRENCH DETAILS



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Designed	J.J.H.
Drawn	E.L.H.
Checked	J.J.H.

NO.	DATE	REVISION	BY

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OSTROKOLOWICZ RESIDENCE
1579 SE 8TH STREET
DEERFIELD BEACH, FLORIDA

PAVING AND
DRAINAGE DETAILS

APPROVED: _____ DATE: _____
JOHN J. HALEY, P.E.
REGISTERED ENGINEER NO. 40023
STATE OF FLORIDA

SCALE: N.T.S.
PROJECT NUMBER: 21-2815

3
4

GENERAL NOTES

A. APPLICABLE CODES

1. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE CITY, COUNTY AND STATE.
2. CONSTRUCTION SAFETY - ALL CONSTRUCTION SHALL BE DONE IN A SAFE MANNER, SPECIFICALLY, THE RULES AND REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA), AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) SHALL BE STRICTLY OBSERVED.
3. THE CONTRACTOR SHALL BE REQUIRED TO COMPLY WITH CHAPTER 90-9 OF THE LAWS OF FLORIDA (THE TRENCH SAFETY ACT) AND OSHA STANDARD 29 C.F.R. SECTION 1926.650. SUBPART P. THE CONTRACTOR SHALL SUBMIT WITH HIS CONTRACT A COMPLETED, SIGNED, AND NOTARIZED COPY OF THE TRENCH SAFETY ACT COMPLIANCE STATEMENT. THE CONTRACTOR SHALL ALSO SUBMIT A SEPARATE COST ITEM IDENTIFYING THE COST OF COMPLIANCE WITH THE APPLICABLE TRENCH SAFETY CODES.
4. NO CONSTRUCTION MAY COMMENCE UNTIL THE APPROPRIATE PERMITS HAVE BEEN OBTAINED FROM ALL LOCAL, STATE AND FEDERAL AGENCIES.

B. PRE CONSTRUCTION RESPONSIBILITIES

1. UPON RECEIPT OF NOTICE OF AWARD, THE CONTRACTOR SHALL ARRANGE A PRE CONSTRUCTION CONFERENCE TO INCLUDE ALL INVOLVED GOVERNMENTAL AGENCIES, ALL AFFECTED UTILITY OWNERS, THE OWNER, THE ENGINEER AND HIMSELF.
2. THE CONTRACTOR SHALL OBTAIN AN SUNSHINE STATE ONE CALL OF FLORIDA CERTIFICATION NUMBER AT LEAST 48 HOURS PRIOR TO PRIOR TO BEGINNING ANY EXCAVATION.
3. PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THE SIZE, LOCATION AND MATERIAL OF ALL EXISTING UTILITIES WITHIN THE AREA OF CONSTRUCTION.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO ANY EXISTING UTILITIES FOR WHICH HE FAILS TO REQUEST LOCATIONS FROM THE UTILITY OWNER. HE IS RESPONSIBLE AS WELL FOR DAMAGE TO ANY EXISTING UTILITIES WHICH ARE PROPERLY LOCATED.
5. IF UPON EXCAVATION, AN EXISTING UTILITY IS FOUND TO BE IN CONFLICT WITH THE PROPOSED CONSTRUCTION OR TO BE OF A SIZE OR MATERIAL DIFFERENT FROM THAT SHOWN ON THE PLANS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER.

C. INSPECTIONS

1. THE OWNER, ENGINEER, AND LOCAL PERMITTING AGENCIES MAY MAKE INSPECTIONS OF THE WORK AT ANY TIME. THE CONTRACTOR SHALL COOPERATE FULLY WITH ALL INSPECTIONS.

D. SHOP DRAWINGS

1. THE CONTRACTOR SHALL SUBMIT (5) FIVE SETS OF SHOP DRAWINGS FOR APPROVAL TO THE ENGINEER OF RECORD PRIOR TO FABRICATION OR CONSTRUCTION FOR ALL MATERIALS USED ON THE PROJECT. APPROVED SHOP DRAWINGS FROM THE ENGINEER SHALL THEN BE SUBMITTED BY THE CONTRACTOR TO THE COUNTY OR CITY FOR THEIR APPROVAL. NO CONSTRUCTION SHALL COMMENCE UNTIL THE APPROVED SHOP DRAWINGS HAVE BEEN OBTAINED BY THE CONTRACTOR FROM THE ENGINEER, CITY, AND/OR COUNTY.
2. INDIVIDUAL SHOP DRAWINGS FOR ALL PRECAST STRUCTURES ARE REQUIRED. CATALOG LITERATURE WILL NOT BE ACCEPTED FOR PRECAST STRUCTURES.

E. TEMPORARY FACILITIES

1. TEMPORARY UTILITIES - IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ARRANGE FOR OR SUPPLY TEMPORARY WATER SERVICE, SANITARY FACILITIES AND ELECTRICITY TO HIS EMPLOYEES AND SUBCONTRACTORS FOR THEIR USE DURING CONSTRUCTION.
2. TRAFFIC REGULATION - MAINTENANCE OF TRAFFIC IN THE PUBLIC RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH THE MUTCD AND THE FDOT STANDARD SPECIFICATIONS.
3. ALL OPEN TRENCHES AND HOLES ADJACENT TO ROADWAYS OR WALKWAYS SHALL BE PROPERLY MARKED AND BARRICADED TO ASSURE THE SAFETY OF BOTH VEHICULAR AND PEDESTRIAN TRAFFIC. NO HOLES SHALL BE LEFT OPEN OVERNIGHT.

F. PROJECT SITE

1. DURING CONSTRUCTION THE PROJECT SITE AND ALL ADJACENT AREAS SHALL BE MAINTAINED IN A NEAT AND CLEAN MANNER. UPON FINAL CLEAN UP, THE PROJECT SITE SHALL BE LEFT CLEAR OF ALL SURPLUS MATERIAL OR TRASH. THE PAVED AREAS SHALL BE SWEEP BROOM CLEAN.
2. THE CONTRACTOR SHALL RESTORE OR REPLACE, WHEN AND AS DIRECTED BY THE ENGINEER ANY PUBLIC OR PRIVATE PROPERTY DAMAGED BY HIS WORK, EQUIPMENT, EMPLOYEES OR THOSE OF HIS SUBCONTRACTORS TO A CONDITION AT LEAST EQUAL TO THAT EXISTING IMMEDIATELY PRIOR TO THE BEGINNING OF OPERATIONS. TO THIS END, THE CONTRACTOR SHALL DO AS REQUIRED ALL NECESSARY HIGHWAY OR DRIVEWAY, WALK, AND LANDSCAPING WORK. SUITABLE MATERIALS AND METHODS SHALL BE USED FOR SUCH RESTORATION.
3. WHERE MATERIAL OR DEBRIS HAS WASHED OR FLOWED INTO OR BEEN PLACED IN WATER COURSES, DITCHES, DRAINS, CATCH BASINS, OR ELSEWHERE AS A RESULT OF THE CONTRACTOR'S OPERATIONS, SUCH MATERIAL OR DEBRIS SHALL BE REMOVED AND SATISFACTORILY DISPOSED OF DURING PROGRESS OF THE WORK, AND THE AREA KEPT IN A CLEAN AND NEAT CONDITION.

G. PROJECT RECORD DOCUMENTS

1. THE CONTRACTOR SHALL MAINTAIN ACCURATE AND COMPLETE RECORDS OF WORK ITEMS COMPLETED, INFORMATION RELATIVE TO MANHOLES, VALVES, SERVICES, FITTINGS, LENGTH OF PIPE, INVERT ELEVATIONS, FINISHED GRADE ELEVATIONS AND THE LIKE. THESE SHALL BE ACCURATELY RECORDED BY THE CONTRACTOR. TOP ELEVATIONS @ 100' O.C.
2. PRIOR TO THE PLACEMENT OF ANY ASPHALT OR CONCRETE PAVEMENT, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER OF RECORD "AS-BUILT" PLANS SHOWING LIMEROCK BASE GRADIES, ALL DRAINAGE, WATER, AND SEWER IMPROVEMENTS, PAVING OPERATIONS SHALL NOT COMMENCE UNTIL THE ENGINEER HAS REVIEWED THE "AS-BUILTS" AND THE ENGINEER HAS APPROVED PAVING TO COMMENCE.
3. ALL REQUIRED DENSITY AND LBR TEST RESULTS FOR SUBGRADE SHALL BE PROVIDED TO THE ENGINEER PRIOR TO PLACING LIMEROCK BASE MATERIAL.
4. ALL REQUIRED DENSITY AND LBR TEST RESULTS FOR LIMEROCK SHALL BE PROVIDED TO THE ENGINEER PRIOR TO PLACING ASPHALT.
5. ALL "AS-BUILT" INFORMATION SUBMITTED TO THE ENGINEER SHALL BE SUFFICIENTLY ACCURATE, CLEAR AND LEGIBLE TO SATISFY THE ENGINEER AND ANY APPLICABLE REVIEWING AGENCY THAT THE INFORMATION PROVIDES A TRUE REPRESENTATION OF THE IMPROVEMENTS CONSTRUCTED.
6. UPON COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER OF RECORD FIVE COMPLETE SETS OF "AS-BUILT" CONSTRUCTION DRAWINGS (PRINTS) AND ONE MYLAR ORIGINAL. THESE DRAWINGS SHALL BE MARKED TO SHOW "AS-BUILT" CONSTRUCTION CHANGES AND DIMENSIONED LOCATIONS AND ELEVATIONS OF ALL IMPROVEMENTS AND SHALL BE SIGNED BY THE CONTRACTOR.
7. ALL "AS-BUILT" INFORMATION ON ELEVATIONS OF PAVING, DRAINAGE, WATER, AND SEWER SHALL BE CERTIFIED BY A REGISTERED LAND SURVEYOR.

H. EARTHWORK AND COMPACTION

a. GENERAL

1. NONE OF THE EXISTING MATERIAL IS TO BE INCORPORATED IN THE LIMEROCK BASE.
2. ALL SUBGRADE UNDER PAVED AREAS SHALL HAVE A MINIMUM LBR VALUE OF 40 AND SHALL BE COMPACTED TO 98% OF THE MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180.
3. ALL FILL MATERIAL IN AREAS NOT TO BE PAVED SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180.
4. A 2" BLANKET OF TOP SOIL SHALL BE PLACED OVER ALL AREAS TO BE SODDED.
5. SOD SHALL BE ST. AUGUSTINE, BITTER BLUE OR FLORATAM AND SHALL BE PLACED ON THE GRADED TOP SOIL AND WATERED TO INSURE SATISFACTORY CONDITION UPON FINAL ACCEPTANCE OF THE PROJECT.
6. WHEN WORKING IN AND AROUND EXISTING DRAINAGE CANALS OR LAKES, APPROPRIATE SILT BARRIERS SHALL BE INSTALLED.

b. ON-SITE:

1. ALL ORGANIC AND OTHER UNSUITABLE MATERIAL WITHIN THREE FEET OF AREAS TO BE PAVED SHALL BE REMOVED.
2. SUITABLE BACKFILL SHALL BE MINIMUM LBR 40 MATERIAL COMPACTED TO 98% OF THE MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180 FOR THREE (3) FEET BEYOND THE PERIMETER OF THE PAVING.

I. STORM DRAINAGE

a. CONTRACTOR MAY UTILIZE ONE OF THE FOLLOWING MATERIALS.

1. ALUMINUM:
 - A. PIPE SHALL BE ALUMINUM, MANUFACTURED IN CONFORMANCE WITH ASTM B209.
 - B. PIPE SHALL BE SPIRAL RIB DRAINAGE PIPE WITH 3/4" BY 3/4" RIBS, APPROXIMATELY 7-1/2" ON CENTER. GAUGE THICKNESS SHALL MEET FDOT STANDARD 945-1.
 - C. PIPE COUPLING BANDS SHALL BE 12" WIDE STANDARD SPLIT BANDS OF THE SAME ALLOY AS THE PIPE AND MAY BE ONE GAUGE LIGHTER THAN THE PIPE.
 - D. POLYURETHANE OR OTHER SEALANT SHALL BE USED WITH COUPLING BANDS ON ALL NON-PERFORATED PIPE.
2. REINFORCED CONCRETE PIPE (RCP):
 - A. BEDDING AND INITIAL BACKFILL OVER DRAINAGE PIPES SHALL BE SAND WITH NO ROCK LARGER THAN 1" DIAMETER.
 - B. BACKFILL MATERIAL UNDER PAVED AREAS SHALL BE COMPACTED TO 98% OF THE MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180.
 - C. BACKFILL MATERIAL UNDER AREAS NOT TO BE PAVED SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180.
 - D. CATCH BASINS SHALL BE PRECAST MINIMUM 3000 PSI CONCRETE AND GRADE 40 REINFORCED STEEL.
3. MISCELLANEOUS:
 - A. PIPE SHALL BE PLACED ON STABLE GRANULAR MATERIAL FREE OF ROCK FORMATION OTHER FOREIGN FORMATIONS AND CONSTRUCTED TO UNIFORM GRADE AND LINE.
 - B. BACKFILL MATERIAL SHALL BE WELL GRADED GRANULAR MATERIAL WELL TAMPED IN LAYERS NOT TO EXCEED SIX INCHES (6").
 - C. PROVIDE A MINIMUM PROTECTIVE COVER OF 18 INCHES OVER STORM SEWER AND AVOID UNNECESSARY CROSSING BY HEAVY CONSTRUCTION VEHICLES DURING CONSTRUCTION.
 - D. THE CONTRACTOR SHALL NOTIFY THE LOCAL WATER CONTROL DISTRICT AT LEAST 24 HOURS PRIOR TO THE START OF OR CONSTRUCTION AND INSPECTION.
 - E. HOPE DRAINAGE PIPE SHALL CONFORM TO AASHTO M29A STANDARD SPECIFICATION FOR CORRUGATED POLYETHYLENE PIPE, 12" TO 36" DIAMETER, SMOOTH LINED INSIDE WALLS.

J. STORM DRAINAGE PRE-TREATMENT/EXFILTRATION SYSTEM

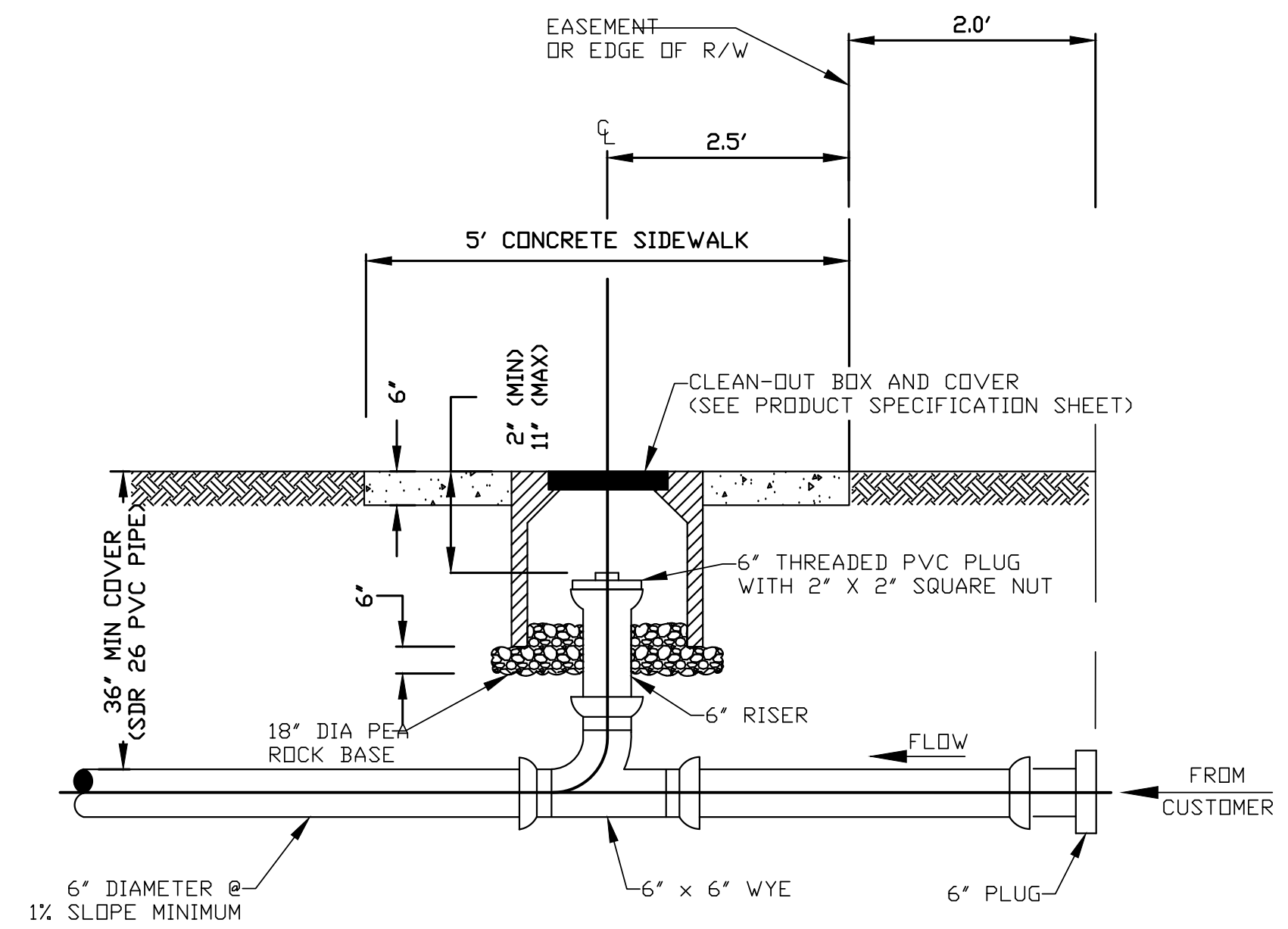
- ANY CONFLICT WITH EXISTING OR PROPOSED UTILITIES SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ENGINEER. ANY IMPERMEABLE MATERIAL ENCOUNTERED IN THE EXCAVATION FOR THE DRAIN FIELD SHALL BE REMOVED AS DIRECTED BY THE ENGINEER.
- THE TRENCH LINER SHALL BE TYPAR SPUN BONDED POLYPROPYLENE FILTER FABRIC AS MANUFACTURED BY THE DUPONT COMPANY, OR APPROVED EQUAL. IT SHALL BE USED ON THE SIDES AND TOP OF DRAIN FIELD DITCH. THE TOP SECTION OF THE MATERIAL SHALL BE LAPPED A MINIMUM OF 24 INCHES AND THE CONTRACTOR SHALL TAKE EXTREME CARE IN BACKFILLING TO AVOID BUNCHING OF THE FABRIC.
- PERFORATED PIPE WITHIN THE DRAIN FIELD SHALL HAVE 3/8" INCH PERFORATIONS 360° AROUND THE PIPE WITH APPROXIMATELY 120 PERFORATIONS PER FOOT OF PIPE.
- PERFORATED PIPE SHALL TERMINATE FIVE FEET (5') FROM THE DRAINAGE STRUCTURE. THE REMAINING FIVE FEET (5') SHALL BE NON-PERFORATED PIPE.
- PIPES SHALL TERMINATE TWO FEET (2') FROM THE END OF THE TRENCH OR CONNECT TO ADDITIONAL CATCH BASINS.

Z. PAVER BLOCK

- GENERAL:**
 1. WHEN APPLICABLE, ALL UNDERGROUND UTILITIES SHALL BE COMPLETED PRIOR TO THE CONSTRUCTION OF LIMEROCK BASE AND PRIOR TO PLACEMENT OF THE PAVEMENT.
 2. ALL EXISTING CONCRETE, LANDSCAPING, IRRIGATION, CABLE CUT OR DAMAGED BY CONSTRUCTION SHALL BE PROPERLY RESTORED AT THE CONTRACTOR'S EXPENSE.
 3. PAVING STONES SHALL BE DELIVERED AND UNLOADED AT JOB SITE IN SUCH A MANNER THAT NO DAMAGE OCCURS DURING SHIPPING, HANDLING AND STORAGE.
 4. PAVEMENT RADI SHALL BE CONSTRUCTED AS NOTED ON THE PLANS
 5. UPON COMPLETION OF DRAINAGE IMPROVEMENTS AND LIMEROCK BASE CONSTRUCTION (AND BEFORE PLACING PAVERS) THE CONTRACTOR SHALL FURNISH THE ENGINEER OF RECORD AND THE CITY OF DEERFIELD BEACH "AS-BUILT" PLANS FOR THESE IMPROVEMENTS, SHOWING THE LOCATIONS AND THE FINISHED GRADES OF ALL DRAINAGE INSTALLATIONS AND THE FINISHED ROCK GRADES OF THE ROAD CROWN AND EDGE OF PAVEMENT AT 25 FEET INTERVALS. THESE "AS-BUILTS" SHALL BE APPROVED BY THE CITY PRIOR TO THE PLACEMENT OF FINAL PAVERS.
- MATERIALS:**
 1. BASE COURSE SHALL BE CRUSHED LIMEROCK MIAMI OOLITE WITH A MINIMUM OF 70% CARBONATES OF CALCIUM AND MAGNESIUM (60% FOR LOCAL STREETS AND PARKING AREAS) AND A MINIMUM LIMEROCK BEARING RATIO 100.
 2. ALL SOLID CONCRETE PAVING UNITS MUST COMPLY WITH ASTM DESIGNATION C936-82 WITH A MINIMUM COMPRESSIVE STRENGTH OF 8,000 P.S.I.
 3. PAVER THICKNESS SHALL BE BETWEEN 2-3/8" TO 3-1/8".
 4. REINFORCED CONCRETE SLABS SHALL BE CONSTRUCTED OF CLASS I CONCRETE WITH A MINIMUM STRENGTH OF 4,000 PSI AND SHALL BE REINFORCED WITH #3 REBAR @ 10" O.C.E.W. ALL OTHER CONCRETE SHALL HAVE A MINIMUM STRENGTH 4.
- INSTALLATION:**
 1. LIMEROCK BASE MATERIAL SHALL BE 6 INCHES THICK AND SHALL BE COMPACTED TO 98% OF THE MAXIMUM DENSITY AS DETERMINED BY AASHTO T80-C.
 2. LIMEROCK BASE MATERIAL SHALL BE PLACED IN MAXIMUM 6" LIFTS. BASES GREATER THAN 6" SHALL BE PLACED IN TWO OR MORE EQUAL LIFTS.
 3. THE PAVER BEDDING COURSE SHALL BE A WELL GRADED, CLEAN, WASHED SAND WITH 100% PASSING A 3/8" SIEVE SIZE AND A MAXIMUM OF 3% PASSING A No.200 SIEVE SIZE. THE USE OF MASON SAND IS NOT PERMITTED.
 4. ALL EDGES OF THE INSTALLED PAVING STONES SHALL BE RESTRAINED. THE TYPE OF EDGE RESTRAINT SHALL BE APPROVED AT LOCATIONS AND TO DETAILS NOTED ON PLANS.

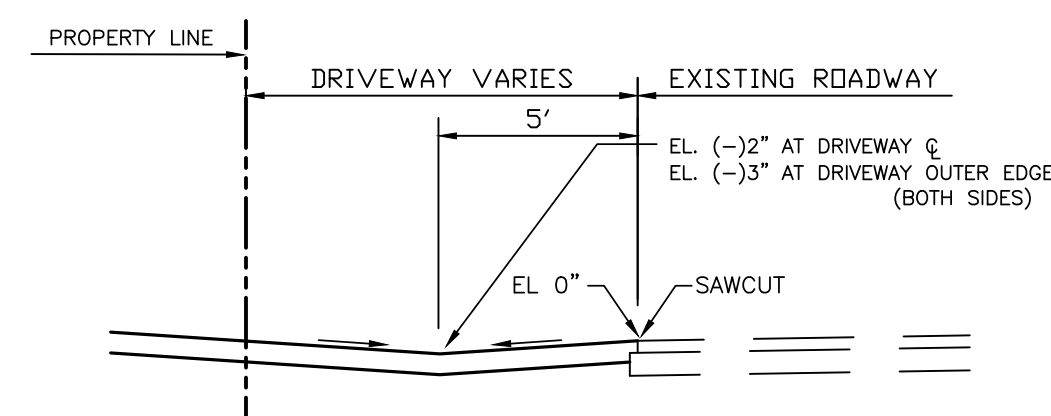
d. TESTING:

- ALL SUBGRADE, AND LIMEROCK TESTS REQUIRED SHALL BE TAKEN AT THE DIRECTION OF THE ENGINEER AND/OR THE CITY OF DEERFIELD BEACH.
1. THE FINISHED SURFACE OF THE BASE COURSE AND THAT OF THE PAVER SURFACE SHALL NOT VARY MORE THAN 1/4" FROM THE TEMPLATE. ANY IRREGULARITIES EXCEEDING THIS LIMIT SHALL BE CORRECTED.
 2. DENSITY TESTS SHALL BE TAKEN BY AN INDEPENDENT TESTING LABORATORY, CERTIFIED BY THE STATE OF FLORIDA, AND TAKEN AS DIRECTED BY THE ENGINEER AND THE CITY OF DEERFIELD BEACH.
 3. ALL TESTING COSTS SHALL BE PAID FOR BY THE OWNER EXCEPT THOSE TESTS FAILING TO MEET THE SPECIFIED REQUIREMENTS, WHICH ARE TO BE PAID BY THE CONTRACTOR.



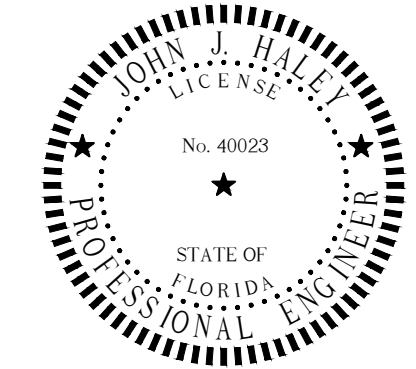
1. THE CLEAN OUT SHALL BE INSTALLED IN THE MIDDLE OF THE SIDEWALK. THIS DIMENSION WILL VARY DEPENDING UPON THE WIDTH OF THE SIDEWALK. 2.5' APPLIES TO 5' SIDEWALK WIDTH. IF SIDEWALKS DO NOT EXIST, THE CLEAN OUT SHALL BE INSTALLED 2.5' FROM THE RIGHT OF WAY LINE.
2. A NEW SECTION OF SIDEWALK SHALL BE POURED AROUND THE CLEAN-OUT BOX WHEN WORKING IN AN AREA WITH EXISTING SIDEWALKS.
3. IN GRASS AREA USE 24"x24" OR 24" DIAMETER CONCRETE COLLAR.

SEWER SERVICE CONNECTION AT PROPERTY LINE OR EASEMENT LINE (PROFILE) DETAIL 341 N.T.S.



TYPICAL DRIVEWAY SECTION N.T.S.

NOTE: IF DRIVEWAY IS CONCRETE, CONCRETE MUST BE 3,000 PSI @ 28 DAYS, 6" THICK WITH NO REINFORCEMENT OR WIRE MESH ALLOWED IN RIGHT-OF-WAY. INCH THICK CONCRETE WITH REINFORCEMENT IS ALLOWED ON SITE ONLY.



This item has been digitally signed and sealed by John J. Haley, P.E. on using a SHA authentication code.
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Designed	J.J.H.
Drawn	E.L.H.
Checked	J.J.H.

NO.	DATE	REVISION	BY

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OSTROKOLOWICZ RESIDENCE
1579 SE 8TH STREET
DEERFIELD BEACH, FLORIDA

NOTES AND SPECIFICATIONS

APPROVED:
DATE: _____
JOHN J. HALEY, P.E.
REGISTERED ENGINEER NO. 40023
STATE OF FLORIDA

SCALE
PROJECT NUMBER
N.T.S.
21-2815

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