



Joe Lauro, CPPO/CPPB  
Director

## CONSTRUCTION CHANGE ORDER NO. 2

**PROJECT:** Remote Parking Lot Expansion – Project #00321A  
**PROJECT NO.** 145-0152-CP(PF)  
**AGREEMENT DATE:** April 7, 2015  
**COMMENCEMENT DATE:** May 13, 2015  
**OWNER:** Pinellas County  
**CONTRACTOR:** David Nelson Construction Company

### REASON FOR CHANGE:

Change Order No. 2. is for the purpose of extending the contract an additional one hundred sixty-five (165) consecutive calendar days and increasing the contract amount by \$289,900.00. This increase would allow for an additional parking area, known as the overflow parking lot.

The Contractor has provided an estimate for the overflow parking lot of \$289,900.00. This amount will be paid for from additional Florida Department of Transportation (FDOT) funds and the Airport Capital Improvement Program budget.

The revised agreement expiration date will be November 18, 2016.

### CHANGE IN AGREEMENT AND PRICE:

The Agreement is revised to include the additional Work set out in the attached Exhibits A. All work shall be performed pursuant to the terms of the Agreement and in accordance with the Exhibits, and County will pay to Contractor and amount not-to-exceed \$289,900.00 for Work completed and accepted in accordance with the Agreement and Exhibit A attached hereto.

Original Agreement Amount:	\$ 1,909,623.00
Change Order No. 1	\$ 0.00
Increase due to Change Order No. 2:	\$ 289,900.00
<b>Revised Agreement Amount:</b>	<b>\$ 2,199,523.00</b>

PLEASE ADDRESS REPLY TO:  
400 South Ft. Harrison, Sixth Floor  
Clearwater, Florida 33756  
Phone: (727) 464-3311  
FAX: (727) 464-3925  
Website: [www.pinellascounty.org/purchase](http://www.pinellascounty.org/purchase)



Your acceptance of this Change order shall constitute a modification to our Agreement and will be performed subject to all of the same terms and conditions as contained in our Agreement indicated above, as fully as if the same were repeated in this acceptance. Acceptance by Contractor of this adjustment to the agreement shall constitute a full and final settlement and release by Contractor of any and all claims, whether known or unknown, against the Owner arising out of or related to the substance of or the circumstances giving rise to the change or changes set forth herein, including claims for impact and delay costs.

PINELLAS COUNTY, FLORIDA  
by and through its Board of County  
Commissioners

ATTEST:

By: \_\_\_\_\_  
Ken Burke  
Clerk of the Court

By: \_\_\_\_\_  
Chairman  
Board of County Commissioners

Date: \_\_\_\_\_

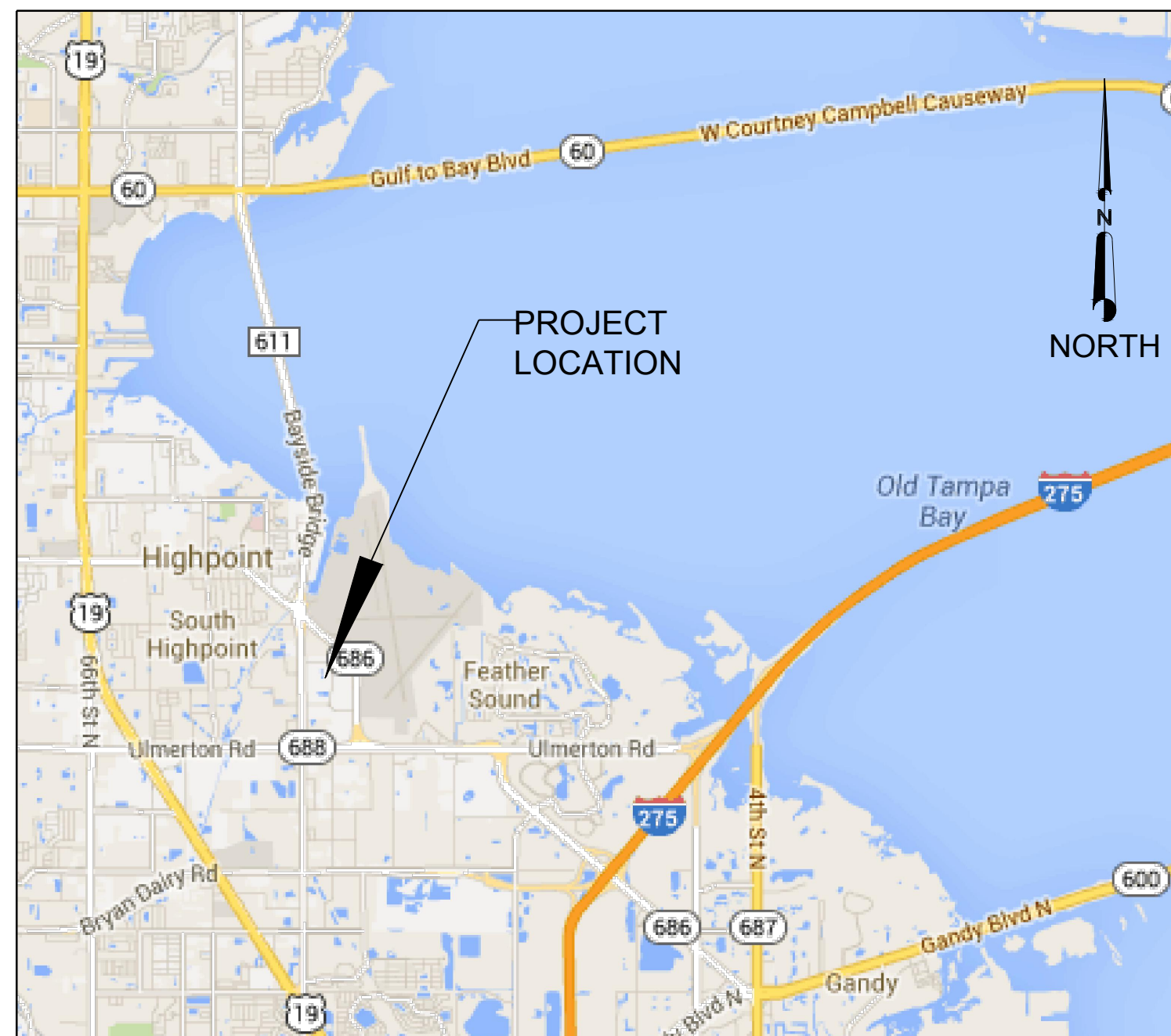
By: \_\_\_\_\_  
APPROVED AS TO FORM  
Office of County Attorney

CONTRACTOR:

By: David L. Verani, V.P. WA 6-10-16  
Type/Print Name and Title

# OVERFLOW PARKING LOT

FDOT# \_\_\_\_\_



**LOCATION MAP**  
N.T.S.

PREPARED FOR:



APRIL 6, 2016

PREPARED BY:

**PINELLAS COUNTY ADMINISTRATOR**

MARK S. WOODARD

**AIRPORT**

THOMAS R. JEWSBURY, C.M., AIRPORT DIRECTOR  
SCOTT YARLEY, P.E. - AIRPORT ENGINEER

**BOARD OF COUNTY COMMISSIONERS**

JOHN MORRONI, COMMISSION CHAIR	- DISTRICT 6
CHARLIE JUSTICE, COMMISSION VICE CHAIR	- DISTRICT 3
JANET C. LONG	- DISTRICT 1
PAT GERARD	- DISTRICT 2
DAVE EGGERS	- DISTRICT 4
KAREN WILLIAMS SEEL	- DISTRICT 5
KENNETH T. WELCH	- DISTRICT 7

**AD**  
AMERICAN  
INFRASTRUCTURE  
DEVELOPMENT, INC.  
3810 Norwood Blvd, Suite 170  
Tampa, Florida 33624  
813-374-2200  
Florida Corporate Affairs 28731

**JACOBS**  
Jacobs, Inc.  
18302 Haddock Proroad, Suite 200  
Tampa, Florida 33647  
813-615-4547  
Florida Corporate Affairs 2822

**SHEET LIST TABLE**

SHEET NUMBER	SHEET TITLE
C001	COVER SHEET
C002	GENERAL NOTES AND QUANTITIES
C101	EXISTING CONDITIONS AND DEMOLITION
C102	BORING LOCATION AND SOIL PROFILES PLAN
C103	EROSION CONTROL PLAN
C201	SITE PLAN
C301	PAVING, GRADING AND DRAINAGE PLAN
C302	PAVING, GRADING AND DRAINAGE PLAN
C303	SITE SECTIONS
C401	SIGNAGE AND MARKING PLAN
C402	SIGNAGE AND MARKING PLAN
C501	SITE DETAILS
E001	LIGHTING PLAN
E101	LIGHTING SCHEDULE AND NOTES
E102	LIGHTING DETAILS

**LEGAL DESCRIPTION**

PROJECT LEGAL DESCRIPTION:  
AIRPORT SUB (UNRECORDED) (ST PETE-CLWTR AIRPORT) UPLAND AND  
SUBM LANDS IN SEC'S 21, 22, 27, 28, 33, 34 & 35/29/16 & IN SEC'S 2, 3 & 4/30/16  
LESS LEASED PARCELS & LESS U.S.C.G. PARCELS & LESS LANDINGS OF  
CLEARWATER CONDO & LESS RD'S. CONT 1274.50AC(C)"

REVIEW SET

G:\1-PROJECTS\PIE\JAC15024-OVERFLOW-PARKING-LOT\03-DRAWINGS\WIP\JAC15024-C002 NOTES AND QUANTITIES.DWG PLOT DATE: 2016-04-06

GENERAL NOTES:

- REFER TO THE PROJECT DESIGN SURVEY FOR VERTICAL AND HORIZONTAL DATUM INFORMATION (STAND-ALONE SURVEY WILL BE PROVIDED. SURVEY NOT INCLUDED IN THE PLANS).
- THE OAR SHALL HAVE THE AUTHORITY TO SUSPEND THE WORK WHOLLY, OR IN PART, FOR SUCH PERIOD OR PERIODS AS HE MAY DEEM NECESSARY, DUE TO UNSUITABLE WEATHER, OR SUCH OTHER CONDITIONS AS ARE CONSIDERED UNFAVORABLE FOR THE EXECUTION OF THE WORK, OR FOR SUCH TIME AS IS NECESSARY DUE TO THE FAILURE ON THE PART OF THE CONTRACTOR TO CARRY OUT ORDERS GIVEN OR PERFORM ANY OR ALL PROVISIONS OF THE CONTRACT.
- THE QUANTITIES SHOWN ON THE BID DOCUMENTS ARE APPROXIMATE AND ARE FOR THE SOLE PURPOSE OF COMPARING BIDS. CONTRACTOR SHALL BE PAID FOR ACTUAL QUANTITIES MEASURED IN THE FIELD AND APPROVED BY THE OAR.
- CONTRACTOR SHALL SUBMIT A QUALITY CONTROL PLAN FOR OAR'S REVIEW AND APPROVAL FOR MAJOR ITEMS OF WORK SUCH AS ASPHALT/CONCRETE PAVING, BASE PLACEMENT, AND/OR SUBGRADE PREPARATION. A QUALITY CONTROL OFFICER SHALL BE DESIGNATED BY THE CONTRACTOR AND APPROVED BY THE OAR. ALL COSTS ASSOCIATED WITH PREPARING THE QUALITY CONTROL PLAN AND QUALITY CONTROL TESTING SHALL BE INCLUDED IN THE UNIT PRICE FOR THE WORK ITEM AND PAID FOR BY THE CONTRACTOR. THE OWNER WILL PAY FOR AND PERFORM QUALITY ASSURANCE TESTING IN CONJUNCTION WITH THE CONTRACTOR'S QUALITY CONTROL TESTING. CONTRACTOR SHALL PAY FOR AND PROVIDE THE TESTING LAB FOR THE ENGINEER'S USE AND FULLY COOPERATE WITH AND GIVE FIRST RIGHT OF USE OF THE LAB FACILITIES TO THE ENGINEER.
- THE OAR AND ENGINEER WILL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES OF CONSTRUCTION OR THE SAFETY PRECAUTIONS INCIDENT THERETO.
- CONTRACTOR SHALL PREPARE A STORMWATER POLLUTION AND PREVENTION PLAN (SWPPP) AND FILE A NOTICE OF INTENT WITH THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION. THE CONTRACTOR IS RESPONSIBLE FOR ADHERENCE TO THE SWPPP DURING CONSTRUCTION. ONCE CONSTRUCTION IS COMPLETED THE CONTRACTOR SHALL FILE A NOTICE OF TERMINATION WITH THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO BECOME FAMILIAR WITH THE PERMIT AND INSPECTION REQUIREMENTS OF THE VARIOUS GOVERNMENT AGENCIES. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND LICENSES REQUIRED FOR CONSTRUCTION. THE COST FOR THESE PERMITS SHALL BE INCLUDED IN THE UNIT PRICE FOR MOBILIZATION.
- CONTRACTOR IS RESPONSIBLE FOR STAKING THE CONSTRUCTION SITE. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OAR OF ANY DISCREPANCY BETWEEN THE DESIGN DRAWINGS AND FIELD CONDITIONS. COST OF CONSTRUCTION STAKING AND MEASUREMENTS SHALL BE INCLUDED IN THE UNIT PRICE FOR THE VARIOUS ITEMS OF WORK. THE CONFORMED DOCUMENTS ARE THE ITEMS PROVIDED FOR STAKING THE PROJECT. ELECTRONIC DESIGN DRAWINGS ARE NOT PART OF THE CONFORMED CONTRACT DOCUMENTS AND ARE PROVIDED TO THE CONTRACTOR AS A REFERENCE ONLY.
- CONTRACTOR SHALL EXAMINE EXISTING ACCESS ROADS, AND OTHER PAVEMENTS TO DETERMINE IF THEY ARE CAPABLE OF SUSTAINING LOADS FROM VEHICLES AND CONSTRUCTION EQUIPMENT. ANY DAMAGE TO EXISTING PAVEMENTS SHALL BE REPAIRED BY THE CONTRACTOR AT NO EXPENSE TO THE OWNER. ANY ROADS THAT MAY BE UNSUITABLE FOR CONSTRUCTION TRAFFIC, BASED ON THE CONTRACTOR'S MEANS AND METHODS SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE OAR.
- ANY PUBLIC LAND CORNER WITHIN THE LIMITS OF CONSTRUCTION IS TO BE PROTECTED. IF A CORNER MONUMENT IS IN DANGER OF BEING DESTROYED AND HAS NOT BEEN PROPERLY REFERENCED THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OAR.
- ITEMS TO BE REMOVED SHALL BE BECOME THE PROPERTY OF THE CONTRACTOR, UNLESS OTHERWISE NOTED IN THE PLANS.
- ALL CONSTRUCTION WASTE SHALL BE DISPOSED OF IN A LEGAL MANNER OFF THE PROJECT SITE. CONTRACTOR SHALL ACQUIRE ANY REQUIRED PERMITS FOR DISPOSAL OF THIS MATERIAL.
- EXISTING UTILITIES ARE TO REMAIN IN PLACE UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL NOT BRING ANY HAZARDOUS MATERIALS ONTO THE PROJECT.
- ANY KNOWN OR SUSPECTED HAZARDOUS MATERIAL FOUND ON THE PROJECT BY THE CONTRACTOR SHALL BE IMMEDIATELY REPORTED TO THE OAR, WHO SHALL DIRECT THE CONTRACTOR TO PROTECT THE AREA OF KNOWN OR SUSPECTED CONTAMINATION FROM FURTHER ACCESS. THE CONTRACTOR SHALL NOT RETURN TO THE AREA OF CONTAMINATION UNTIL APPROVAL IS PROVIDED BY THE OAR.
- THE LOCATIONS OF UTILITIES SHOWN IN THE PLANS ARE BASED ON LIMITED INVESTIGATION TECHNIQUES AND SHOULD BE CONSIDERED APPROXIMATE ONLY.
- CONTRACTOR SHALL CONTACT 811 SUNSHINE TO LOCATE UNDERGROUND UTILITIES BEFORE CONSTRUCTION BEGINS.
- THE CONTRACTOR IS TO COORDINATE WORK WITH UTILITY COMPANIES IN ORDER TO PREVENT DAMAGE TO UTILITY LINES AND THE MAKING OF ADJUSTMENTS TO SAME, IF REQUIRED.
- THE PROJECT'S DESIGN GEOTECHNICAL REPORT IS AVAILABLE FOR THE CONTRACTOR'S REVIEW. HOWEVER, THE CONTRACTOR SHALL NOT RELY ONLY ON

- THE DESIGN GEOTECHNICAL REPORT AND CONFORMED DOCUMENTS FOR THE EXISTING SITE CONDITIONS. THE CONTRACTOR IS RESPONSIBLE FOR ITS OWN DUE DILIGENCE OF THE PROJECT SITE.
- CONTRACTOR SHALL SUBMIT FOR APPROVAL TO THE OAR SHOP DRAWINGS ON ALL PRE-MANUFACTURED ITEMS. SHOP DRAWING REVIEW TIME IS TO BE 10 BUSINESS DAYS. FAILURE TO OBTAIN CONCURRENCE FROM THE OAR BEFORE INSTALLATION MAY RESULT IN REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE.
  - ALL PRIVATE AND PUBLIC PROPERTY AFFECTED BY THIS WORK SHALL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN EXISTING CONDITIONS BEFORE COMMENCING CONSTRUCTION WORK, UNLESS SPECIFICALLY EXEMPTED BY THE PLANS OR AGREED TO IN WRITING BY THE OAR. THESE COSTS ARE INCIDENTAL TO THE OVERALL PROJECT AND NO EXTRA COMPENSATION IS TO BE ALLOWED.
  - THE CONTRACTOR IS RESPONSIBLE FOR MANAGING SILT AND EROSION CONTROL DURING THE PROJECT'S CONSTRUCTION. ITEMS SUCH AS PREPARATION IN ADVANCE OF STORM EVENTS AND SITE RESTORATION AFTER STORM EVENTS ARE THE RESPONSIBILITY OF THE CONTRACTOR AND ARE CONSIDERED INCIDENTAL TO THE OVERALL PROJECT AND NO EXTRA COMPENSATION IS TO BE ALLOWED.
  - DEWATERING PERMITS FOR CONSTRUCTION ACTIVITIES ARE TO BE OBTAINED BY THE CONTRACTOR FROM THE CORRESPONDING REGULATORY AGENCIES. THIS SHALL BE INCIDENTAL TO THE MOBILIZATION PAY ITEM.
  - IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE ALL ITS SUBCONTRACTORS, INCLUDING THE PROJECT'S CONSTRUCTION SURVEYOR, HAVE THE MOST CURRENT SET OF CONSTRUCTION DOCUMENTS, BEFORE AND DURING CONSTRUCTION.
  - PRIOR TO PAVING THE CONTRACTOR SHALL ENSURE ALL NEW UNDERGROUND UTILITIES HAVE BEEN INSTALLED.
  - THE CONTRACTOR SHALL BE RESPONSIBLE FOR RECORDING AS-BUILT INFORMATION CONCURRENTLY WITH CONSTRUCTION PROGRESS. WITHIN 10 BUSINESS DAYS FOLLOWING FINAL INSPECTION THE CONTRACTOR SHALL SUBMIT ONE (1) SET OF AS-BUILT PLANS SIGNED AND SEALED BY A FLORIDA LICENSED SURVEYOR TO THE OAR, AND ONE (1) AUTOCAD ELECTRONIC DRAWING. THE AS-BUILT INFORMATION SHALL INCLUDE AT A MINIMUM INFORMATION ON ALL UTILITIES INSTALLED TOP GRADE AND INVERT ELEVATION AND THE FINAL SURFACE GRADE FOR THE PROJECT. THE CONTRACTOR IS ALSO RESPONSIBLE TO PROVIDE SPECIFIC AS-BUILT INFORMATION AS REQUIRED BY THE PROJECT'S REGULATORY AND PERMITTING AGENCIES. ALL THE AS-BUILT INFORMATION SHALL BE RECORDED IN THE AUTOCAD ELECTRONIC DRAWING ALONG WITH A FINAL GRADE SURFACE AS A DIGITAL TERRAIN MODEL OR A TRIANGULATED IRREGULAR NETWORK.

**27. NOTE TO CONTRACTOR: TREE BARRICADES & EROSION CONTROL MEASURES**

REQUIRED TREE BARRICADES AND EROSION CONTROL MEASURES MUST REMAIN INTACT THROUGHOUT CONSTRUCTION. ENCROACHMENT INTO OR FAILURE TO MAINTAIN THESE BARRICADES WILL RESULT IN ENFORCEMENT ACTION WHICH MAY INCLUDE CITATIONS AND/OR PERMIT REVOCATION AS PROVIDED BY CHAPTER 166 OF THE PINELLAS COUNTY LAND DEVELOPMENT CODE.

**PAY ITEM NOTES:**

**110-1-1 CLEARING AND GRUBBING:** REMOVAL OF EXISTING CONCRETE SLABS, STRUCTURES, ASPHALT, ABOVE GROUND AND UNDER GROUND UTILITIES ARE TO BE INCLUDED IN THE LUMP SUM COST FOR CLEARING AND GRUBBING. ANY COORDINATION WITH UTILITY COMPANIES FOR REMOVAL/RELOCATION ACTIVITIES SHALL BE COMPLETED BY THE CONTRACTOR AND ITS COST INCLUDING FEES, MATERIAL AND LABOR IS CONSIDERED INCIDENTAL UNDER THIS PAY ITEM, UNLESS NOTED OTHERWISE.

SITE PREPARATION, INCLUDING THE REMOVAL OF TOPSOIL, AS RECOMMENDED UNDER THE PROJECT'S GEOTECHNICAL REPORT IS CONSIDERED INCIDENTAL UNDER THIS PAY ITEM.

**120-1 REGULAR EXCAVATION:** EXCAVATION OF ALL FILL, EXCLUDING TOPSOIL, IS INCLUDED UNDER THIS PAY ITEM.

BASE BID			
PAY ITEM	DESCRIPTION	UNIT	PLAN QTY
TS-001	MOBILIZATION	LS	1
102-1	MAINTENANCE OF TRAFFIC	LS	1
104-10-3	SEDIMENT BARRIER, SILT FENCE	LF	3000
104-11	FLOATING TURBIDITY BARRIER	LF	70
104-15	SOIL TRACKING PREVENTION DEVICE	EA	2
110-1-1	CLEARING AND GRUBBING	LS	1
120-1	REGULAR EXCAVATION	CY	4000
120-6	EMBANKMENT	CY	2800
	5" ASPHALT MILLINGS	SY	18000
570-1-1	PERFORMANCE TURF	SY	9000
334-1-12	SUPERPAVE ASPHALTIC CONCRETE, TRAFFIC B (2")	TN	75
285-7	OPTIONAL BASE, BASE GROUP 04 (6")	SY	700
160-4	TYPE B STABILIZATION (12")	SY	750
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 6" THICK	SY	95
522-2	CONCRETE SIDEWALK AND DRIVEWAYS, 4" THICK	SY	85
425-1581	DITCH BOTTOM INLETS, TYPE C, < 10'	EA	1
430-175-124	PIPE CULVERT, RCP CLASS III, 24" STORM DRAIN	LF	25
430-200-29	24" FLARED END SECTION	EA	1
	HYDROTEX FILTER POINT LINING SYSTEM	SY	55
542-70	CONCRETE BUMP GUARD	EA	493
550-10-210	CHAIN LINK FENCE (4')	LF	2250
550-60-213	FENCE GATE, SINGLE, SWING (4'x16')	EA	2
700-1-11	SINGLE POST SIGN, FURNISH AND INSTALL GROUND MOUNT, <12SF	AS	10
710-11-101	PAINTED, STANDARD, WHITE, SOLID, 6"	LF	285
710-11-460	PAINTED, STANDARD, BLUE, MESSAGE	EA	9
710-11-421	PAINTED, STANDARD, BLUE, SOLID, 6"	LF	330

ALTERNATE BID			
PAY ITEM	DESCRIPTION	UNIT	PLAN QTY
	CLEARING/CLEANING ADJACENT POND AND PIPING	LS	1



**JACOBS**

JACOBS, INC.  
16302 HIGHWOODS PRESERVE PARKWAY,  
SUITE 200  
TAMPA, FLORIDA 33647  
813-616-4547  
FLORIDA CERT. OF AUTHORIZATION 2822

PROJECT: **OVERFLOW PARKING LOT**

LOCATION: ST. PETE - CLEARWATER INTERNATIONAL AIRPORT CLEARWATER, FL

**AID**

AMERICAN INFRASTRUCTURE DEVELOPMENT, INC.  
3810 NORTHDALE BOULEVARD,  
SUITE 170  
TAMPA, FL 33624  
OFFICE: 813-374-2200  
FL LICENSE C.A. No. 28731

MARK	DATE	DESCRIPTION
2	4/6/16	PINELLAS REVISIONS

ENGINEER OF RECORD

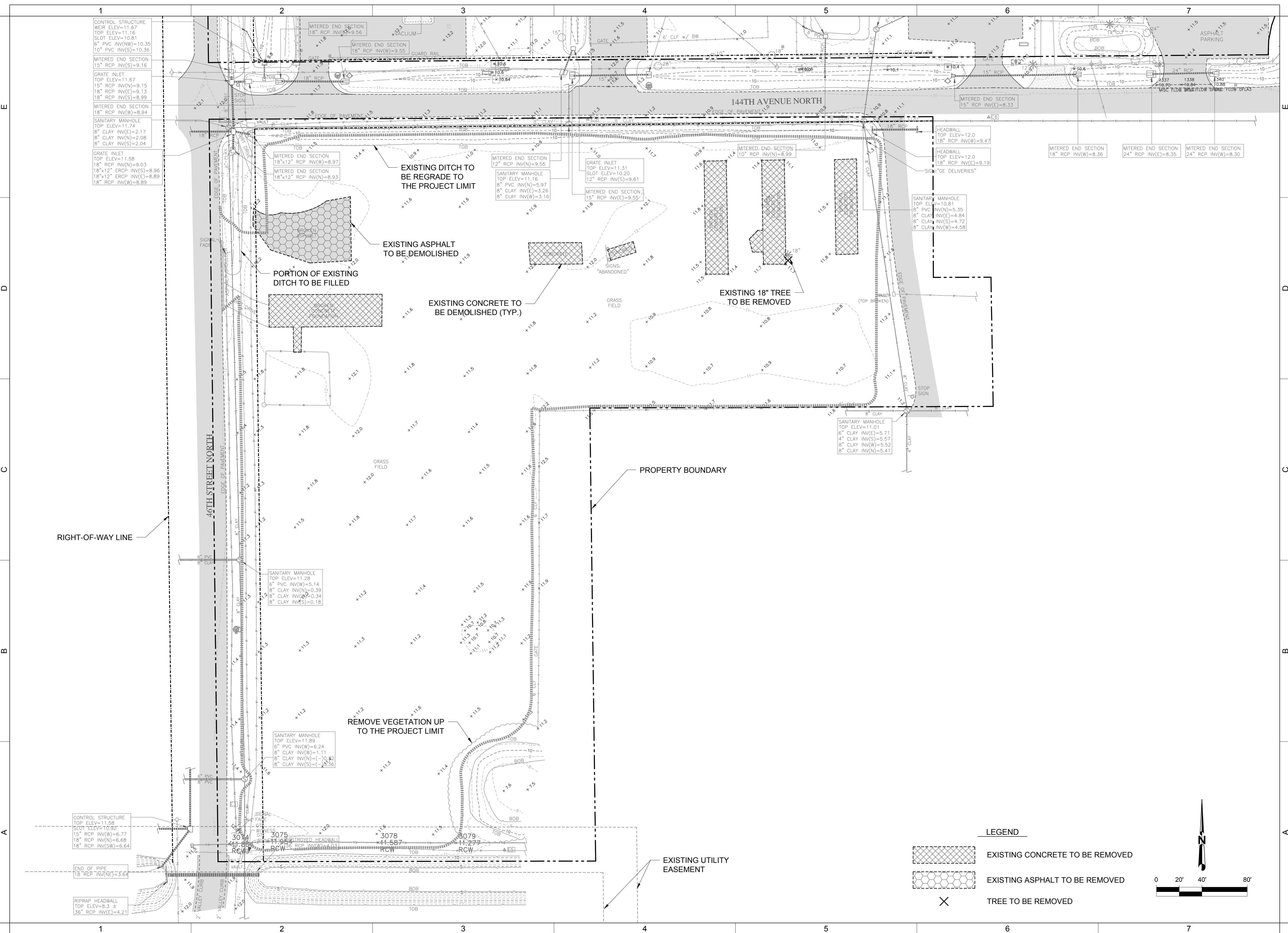
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PROJECT No: JAC15024

REVIEW SET

**GENERAL NOTES AND QUANTITIES**

**C002**

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**JACOBS**  
 JACOBS, INC.  
 16302 HIGHWOODS PRESERVE PARKWAY,  
 SUITE 200  
 TAMPA, FLORIDA 33647  
 813-616-4547  
 FLORIDA CERT. OF AUTHORIZATION 2822

PROJECT:  
**OVERFLOW PARKING LOT**  
 LOCATION: ST. PETE - CLEARWATER INTERNATIONAL AIRPORT CLEARWATER, FL

**AID**  
 AMERICAN INFRASTRUCTURE DEVELOPMENT, INC.  
 3810 NORTHALE BOULEVARD,  
 SUITE 170  
 TAMPA, FL 33624  
 OFFICE: 813-374-2200  
 FL LICENSE C.A. No. 28731

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ENGINEER OF RECORD	
DRAWN BY: YY	
CHECKED BY: ES	
PROJECT No: JAC15024	
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EXISTING CONDITIONS AND DEMOLITION	
C101	

MARK DATE DESCRIPTION  
 ISSUE: APRIL 6, 2016

C:\1-PROJECTS\PIE\AC15024-OVERFLOW-PARKING-LOT\03-DRAWINGS\WIP\AC15024-C102-BORING LOCATION AND SOIL PROFILES PLAN.DWG PLOT DATE: 2016-04-04

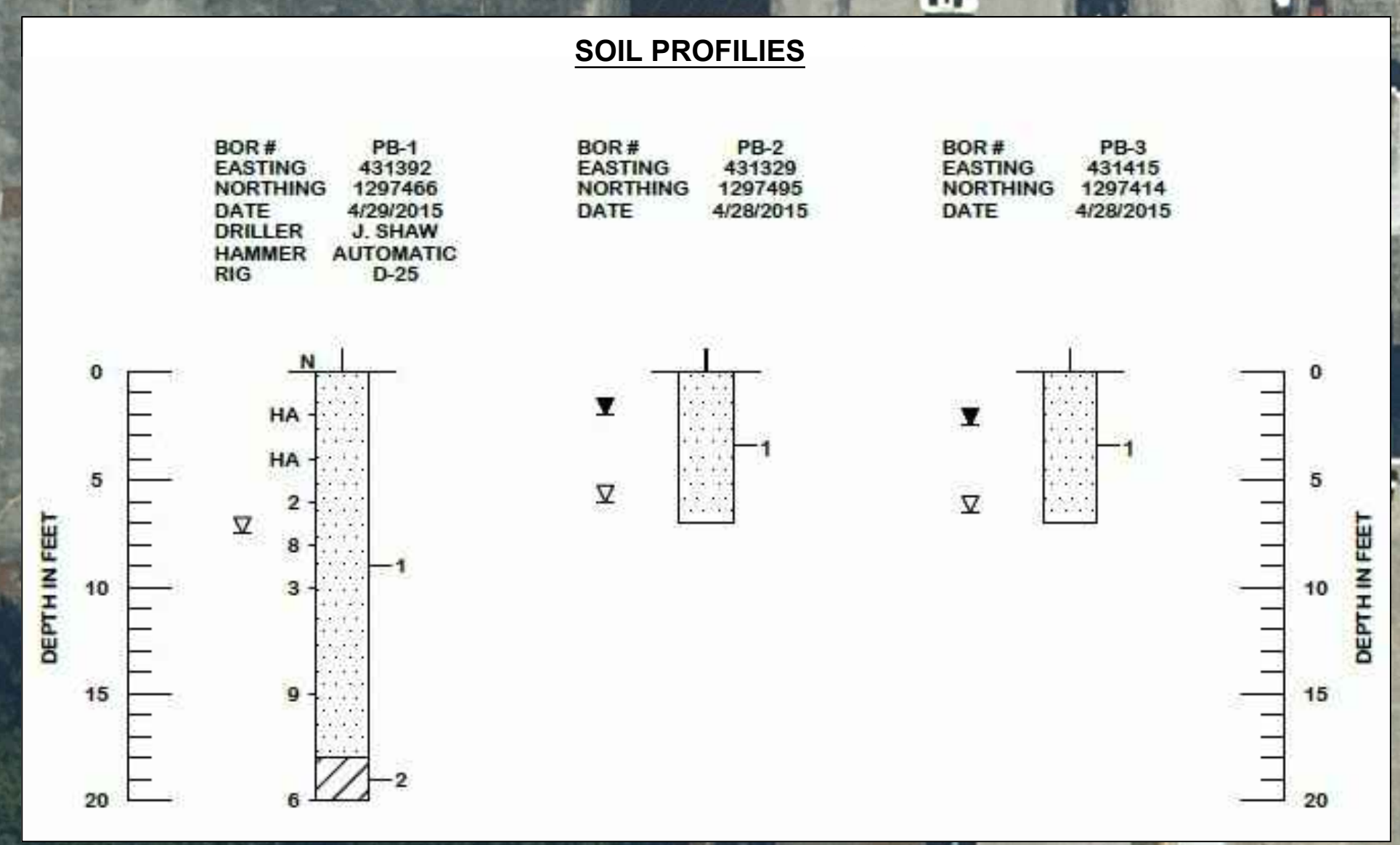


GRANULAR MATERIALS- RELATIVE DENSITY	SPT N-VALUE (BLOWS/FT.)
VERY LOOSE	LESS THAN 3
LOOSE	3 TO 8
MEDIUM	8 TO 24
DENSE	24 TO 40
VERY DENSE	GREATER THAN 40
SILTS AND CLAYS CONSISTENCY	SPT N-VALUE (BLOWS/FT.)
VERY SOFT	LESS THAN 1
SOFT	1 TO 3
FIRM	3 TO 6
STIFF	6 TO 12
VERY STIFF	12 TO 24
HARD	GREATER THAN 24

### LEGEND

- 1 GRAY TO BROWN FINE SAND TO SAND WITH SILT (SP/SP-SM) [A-3]
- 2 GREEN TO GREEN-BROWN CLAY (CL/CH) [A-7-5/A-7-6]
- APPROXIMATE LOCATION OF SPT BORING
- APPROXIMATE LOCATION OF AUGER BORING/ HYDRAULIC CONDUCTIVITY TEST
- GROUNDWATER LEVEL ENCOUNTERED DURING INVESTIGATION
- ESTIMATED SEASONAL HIGH GROUNDWATER TABLE
- N** SPT N-VALUE IN BLOWS/FOOT FOR 12 INCHES OF PENETRATION (UNLESS OTHERWISE NOTED)
- SP** UNIFIED SOIL CLASSIFICATION SYSTEM (ASTM D 2488) GROUP SYMBOL AS DETERMINED BY VISUAL REVIEW
- A-3** AASHTO GROUP SYMBOL AS DETERMINED BY VISUAL REVIEW
- HA** HAND AUGERED TO VERIFY UTILITY CLEARANCES

**NOTE:**  
THE PROVIDED EASTING AND NORTHING COORDINATES WERE DETERMINED USING GARMIN ETREX GPS EQUIPMENT WITH A REPORTED ACCURACY OF 10 FEET AND THEREFORE SHOULD BE CONSIDERED APPROXIMATE.  
THE GEOTECHNICAL REPORT FOUND AN AVERAGE TOPSOIL DEPTH OF 1".



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 TAMPA, FLORIDA 33647  
 813-616-4547  
 FLORIDA CERT. OF AUTHORIZATION 2822

**PROJECT:**  
**OVERFLOW PARKING LOT**  
**LOCATION:** ST. PETE - CLEARWATER INTERNATIONAL AIRPORT CLEARWATER, FL

**AID AMERICAN INFRASTRUCTURE DEVELOPMENT, INC.**  
 3810 NORTHDALE BOULEVARD,  
 SUITE 170  
 TAMPA, FL 33624  
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MARK	DATE	DESCRIPTION	ISSUE

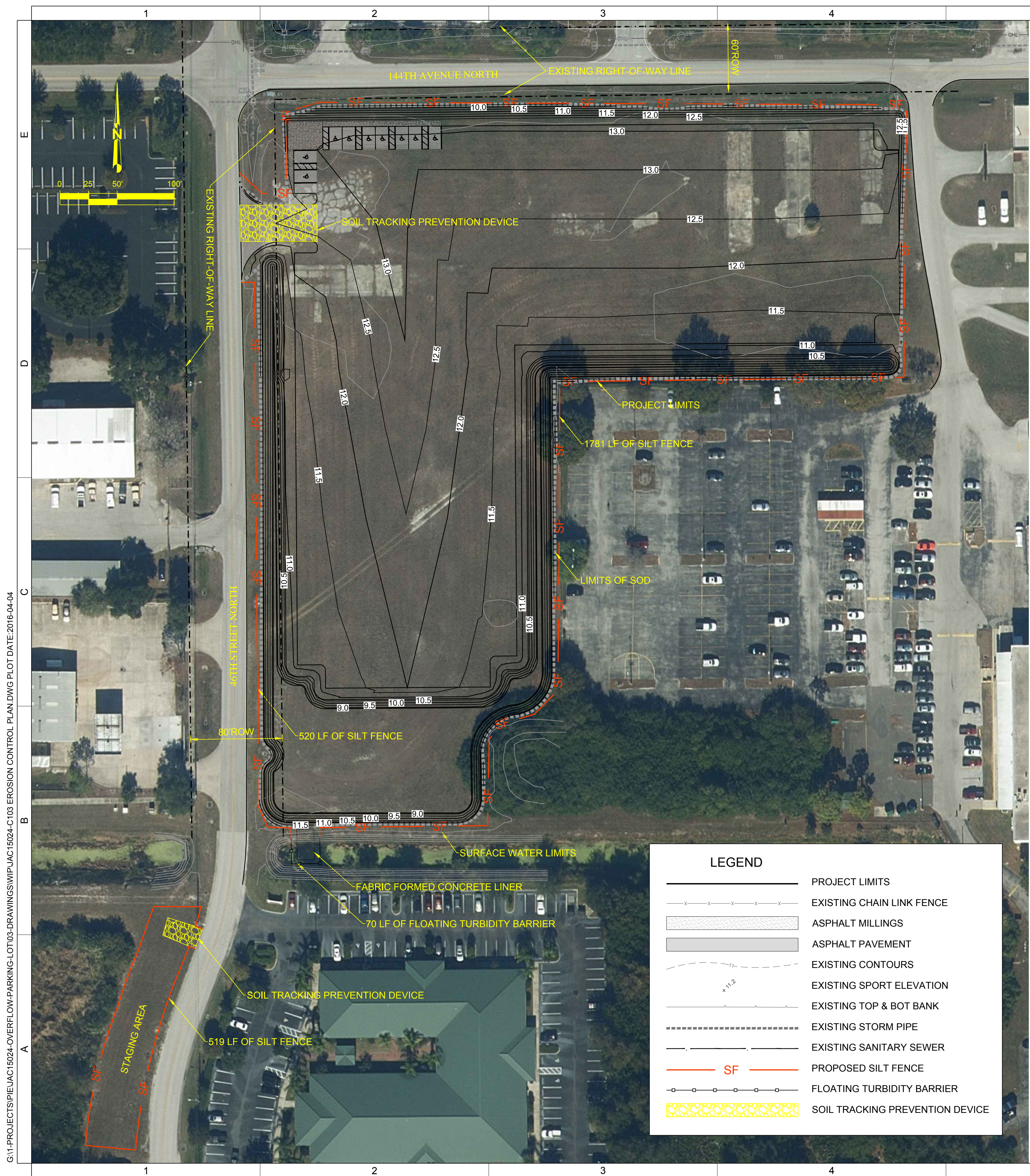
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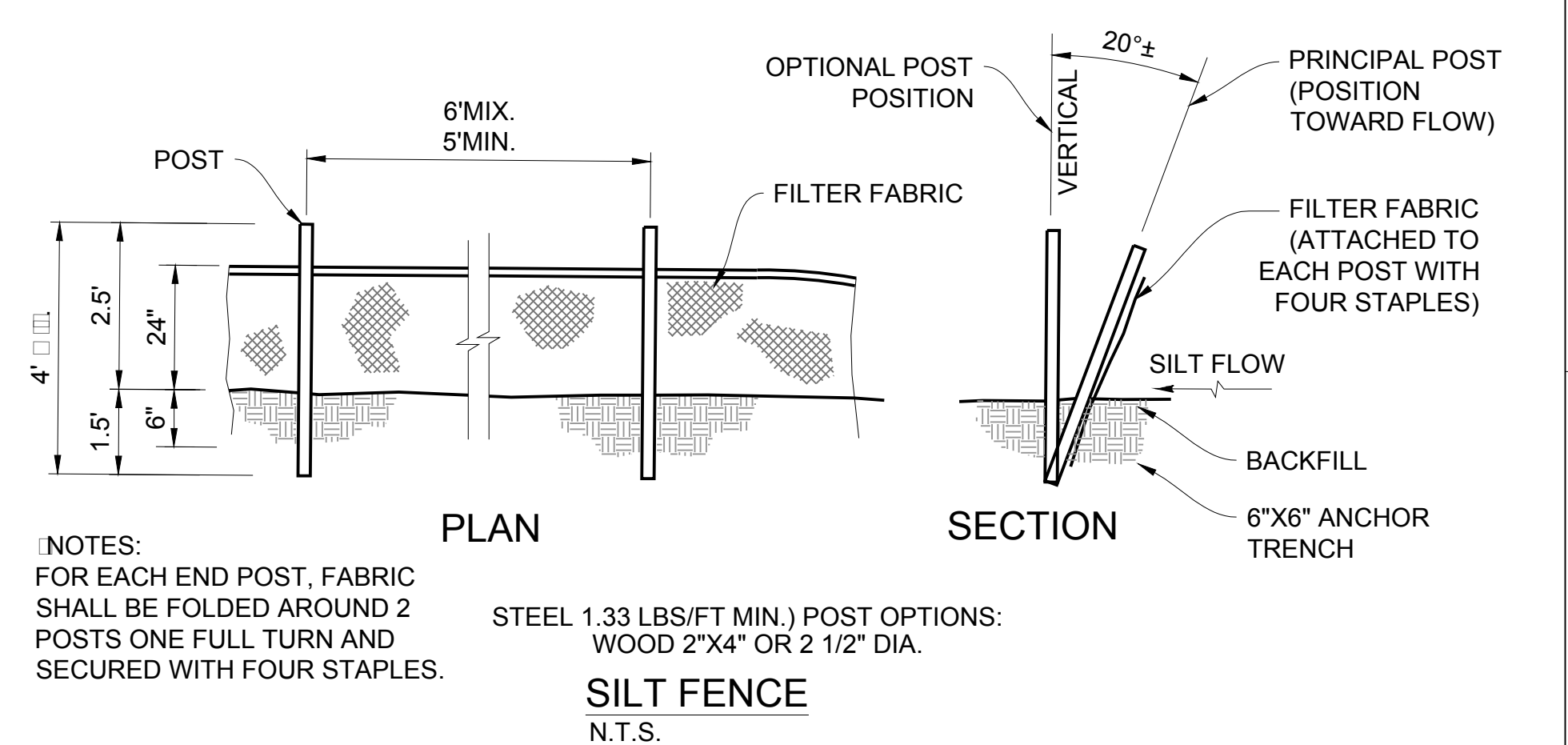
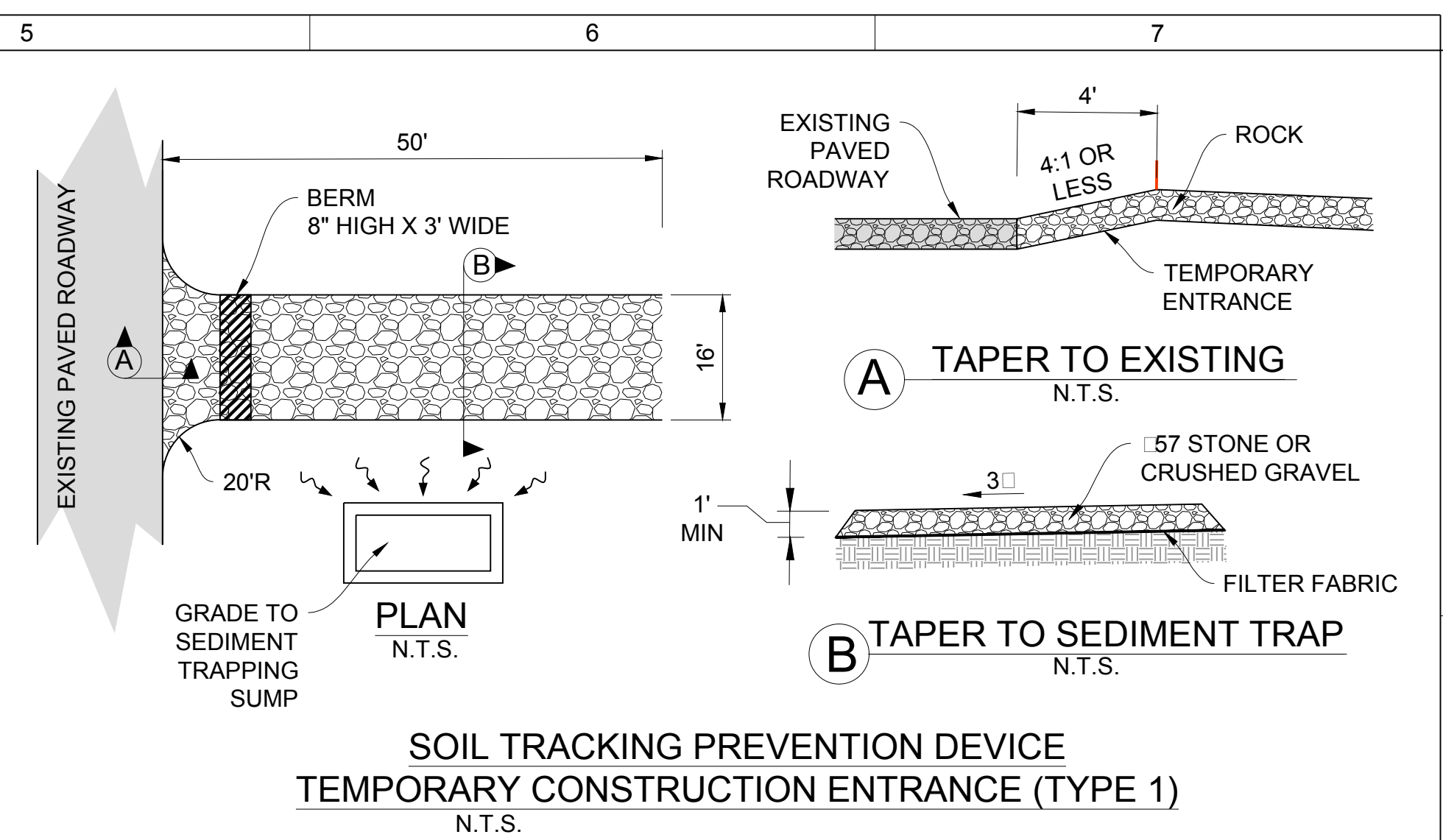
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**BORING LOCATION AND SOIL PROFILES PLAN**

C102



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NOTES:  
FOR EACH END POST, FABRIC SHALL BE FOLDED AROUND 2 POSTS ONE FULL TURN AND SECURED WITH FOUR STAPLES.

STEEL 1.33 LBS/FT MIN.) POST OPTIONS:  
WOOD 2"x4" OR 2 1/2" DIA.  
**SILT FENCE**  
N.T.S.

**EROSION/TURBIDITY CONTROL NOTES**

1. THE INSTALLATION OF TEMPORARY EROSION CONTROL BARRIERS SHALL BE COORDINATED WITH THE CONSTRUCTION OF THE PERMANENT EROSION CONTROL FEATURES TO THE EXTENT NECESSARY TO ASSURE ECONOMICAL, EFFECTIVE AND CONTINUOUS CONTROL OF EROSION AND WATER POLLUTION THROUGHOUT THE LIFE OF THE CONSTRUCTION PHASE.
2. THE TYPE OF EROSION CONTROL BARRIERS USED SHALL BE GOVERNED BY THE NATURE OF THE CONSTRUCTION OPERATION AND SOIL TYPE THAT WILL BE EXPOSED. SILTY AND CLAYEY MATERIAL USUALLY REQUIRE SOLID SEDIMENT BARRIERS TO PREVENT TURBID WATER DISCHARGE, WHILE SANDY MATERIAL MAY NEED ONLY SILT SCREENS OR HAY BALES TO PREVENT EROSION. FLOATING TURBIDITY CURTAINS SHALL BE USED IN OPEN WATER SITUATIONS. DIVERSION DITCHES OR SWALES MAY BE REQUIRED TO PREVENT TURBID STORMWATER RUNOFF FROM BEING DISCHARGED TO WETLANDS OR OTHER WATER BODIES. IT MAY BE NECESSARY TO EMPLOY A COMBINATION OF BARRIERS, DITCHES AND OTHER EROSION/TURBIDITY CONTROL MEASURES IF CONDITIONS WARRANT.
3. CONSTRUCTION OPERATIONS IN OR ADJACENT TO WETLANDS SHALL BE RESTRICTED TO THOSE AREAS IDENTIFIED IN THE PLANS AND IN THE SPECIFICATIONS.
4. EXCEPT AS NECESSARY FOR CONSTRUCTION, EXCAVATED MATERIAL SHALL NOT BE DEPOSITED IN THE WETLANDS OR IN A POSITION CLOSE ENOUGH THERETO TO BE WASHED AWAY BY HIGH WATER OR RUNOFF.
5. WHERE PUMPS ARE TO BE USED TO REMOVE TURBID WATERS FROM CONSTRUCTION AREAS, THE WATER SHALL BE TREATED PRIOR TO DISCHARGE TO THE WETLANDS. TREATMENT METHODS INCLUDE AND ARE NOT LIMITED TO, TURBID WATER BEING PUMPED INTO GRASSED SWALES OR APPROPRIATE VEGETATED AREAS, SEDIMENT BASINS, OR CONFINED BY AN APPROPRIATE ENCLOSURE SUCH AS TURBIDITY BARRIERS, AND KEPT CONFINED UNTIL ITS TURBIDITY LEVEL MEETS STATE WATER QUALITY STANDARDS.
6. THE CONTRACTOR SHALL SCHEDULE HIS OPERATIONS SUCH THAT THE AREA OF UNPROTECTED ERODIBLE EARTH EXPOSED AT ANY ONE TIME IS NOT LARGER THAN THE MINIMUM AREA NECESSARY FOR EFFICIENT CONSTRUCTION OPERATIONS, AND THE DURATION OF EXPOSED, UNCOMPLETED CONSTRUCTION TO THE ELEMENTS SHALL BE AS SHORT AS PRACTICABLE. CLEARING AND GRUBBING SHALL BE SO SCHEDULED AND PERFORMED THAT GRADING OPERATIONS CAN FOLLOW IMMEDIATELY THEREAFTER, AND GRADING OPERATIONS SHALL BE SCHEDULED AND PERFORMED THAT PERMANENT EROSION CONTROL FEATURES CAN FOLLOW IMMEDIATELY THEREAFTER IF CONDITIONS ON THE PROJECT PERMIT.
7. THE CONTRACTOR SHALL PROVIDE ROUTINE MAINTENANCE OF PERMANENT AND TEMPORARY EROSION CONTROL FEATURES UNTIL THE PROJECT IS COMPLETE AND ALL ALTERED SOILS ARE STABILIZED.
8. NPDES NOTIFICATION (NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM)

ATTENTION: THE EROSION/SEDIMENTATION LOCATIONS AND DETAILS SET FORTH IN THIS SITE PLAN HAVE BEEN DEVISED BY THE PROJECT ENGINEER TO MEET THE REQUIREMENTS OF THE FEDERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PROGRAM. FAILURE TO MAINTAIN THESE CONTROLS, OR AN ILLICIT DISCHARGE RESULTING FROM THEIR FAILURE WILL LIKELY RESULT IN FINE CITATIONS. SEC. 58-239 OF THE PINELLAS COUNTY CODE AUTHORIZES PENALTIES OF UP TO \$10,000.00 FOR EACH OFFENSE

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PROJECT: OVERFLOW PARKING LOT

LOCATION: ST. PETE - CLEARWATER INTERNATIONAL AIRPORT CLEARWATER, FL

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ENGINEER OF RECORD

AMERICAN INFRASTRUCTURE DEVELOPMENT, INC.  
3810 NORTHDALE BOULEVARD, SUITE 170  
TAMPA, FL 33624  
OFFICE: 813-374-2200  
FL LICENSE C.A. No: 28731

---

NO.	DATE	DESCRIPTION
1	7/24/15	S/W FWD RAI.1
2	4/06/16	PINELLAS REVISIONS

---

DRAWN BY: YY  
CHECKED BY: ES  
PROJECT No: JAC15024

MARK DATE DESCRIPTION  
ISSUE: APRIL 6, 2016

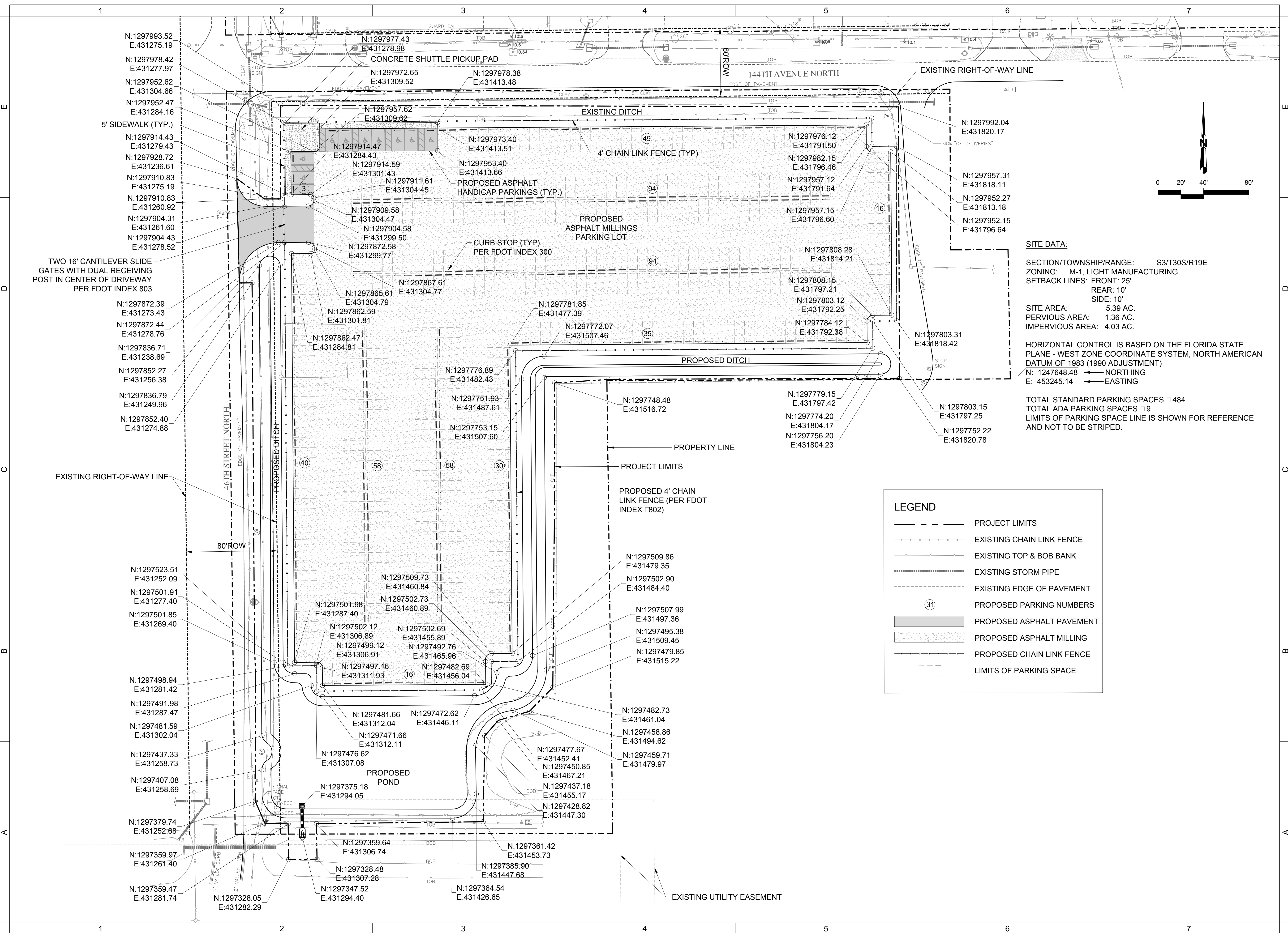
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REVIEW SET

**EROSION CONTROL PLAN**

C103 2

G:\1-PROJECTS\PIE\AC15024-OVERFLOW-PARKING-LOT\03-DRAWINGS\WIP\AC15024-C201 SITE PLAN.DWG PLOT DATE:2016-04-04



**SITE DATA:**  
 SECTION/TOWNSHIP/RANGE: S3/T30S/R19E  
 ZONING: M-1, LIGHT MANUFACTURING  
 SETBACK LINES: FRONT: 25'  
 REAR: 10'  
 SIDE: 10'

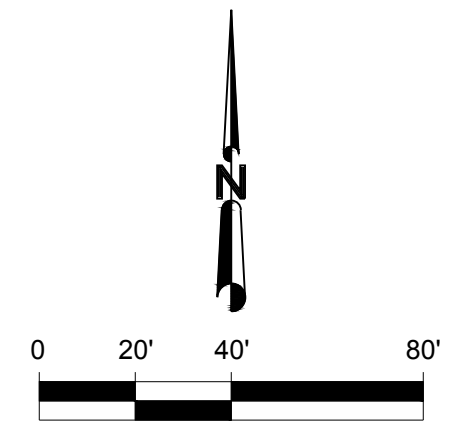
SITE AREA: 5.39 AC.  
 PERVIOUS AREA: 1.36 AC.  
 IMPVIOUS AREA: 4.03 AC.

HORIZONTAL CONTROL IS BASED ON THE FLORIDA STATE PLANE - WEST ZONE COORDINATE SYSTEM, NORTH AMERICAN DATUM OF 1983 (1990 ADJUSTMENT)  
 N: 1247648.48 ← NORTHING  
 E: 453245.14 ← EASTING

TOTAL STANDARD PARKING SPACES □ 484  
 TOTAL ADA PARKING SPACES □ 9  
 LIMITS OF PARKING SPACE LINE IS SHOWN FOR REFERENCE AND NOT TO BE STRIPED.

**LEGEND**

- PROJECT LIMITS
- EXISTING CHAIN LINK FENCE
- EXISTING TOP & BOB BANK
- EXISTING STORM PIPE
- EXISTING EDGE OF PAVEMENT
- ③① PROPOSED PARKING NUMBERS
- ▒ PROPOSED ASPHALT PAVEMENT
- ▒ PROPOSED ASPHALT MILLING
- PROPOSED CHAIN LINK FENCE
- - - LIMITS OF PARKING SPACE



**JACOBS**

JACOBS, INC.  
 16302 HIGHWOODS PRESERVE PARKWAY,  
 SUITE 200  
 TAMPA, FLORIDA 33647  
 813-616-4547  
 FLORIDA CERT. OF AUTHORIZATION 2822

**PROJECT:**  
**OVERFLOW PARKING LOT**

**LOCATION:**  
 ST. PETE - CLEARWATER INTERNATIONAL AIRPORT CLEARWATER, FL

**AID AMERICAN INFRASTRUCTURE DEVELOPMENT, INC.**

3810 NORTHALE BOULEVARD,  
 SUITE 170  
 TAMPA, FL 33624  
 OFFICE: 813-374-2200  
 FL LICENSE C.A. No: 28731

NO.	DATE	DESCRIPTION
2	4/6/16	PINELLAS REVISIONS

ENGINEER OF RECORD

DRAWN BY: YY  
 CHECKED BY: ES  
 PROJECT No: JAC15024

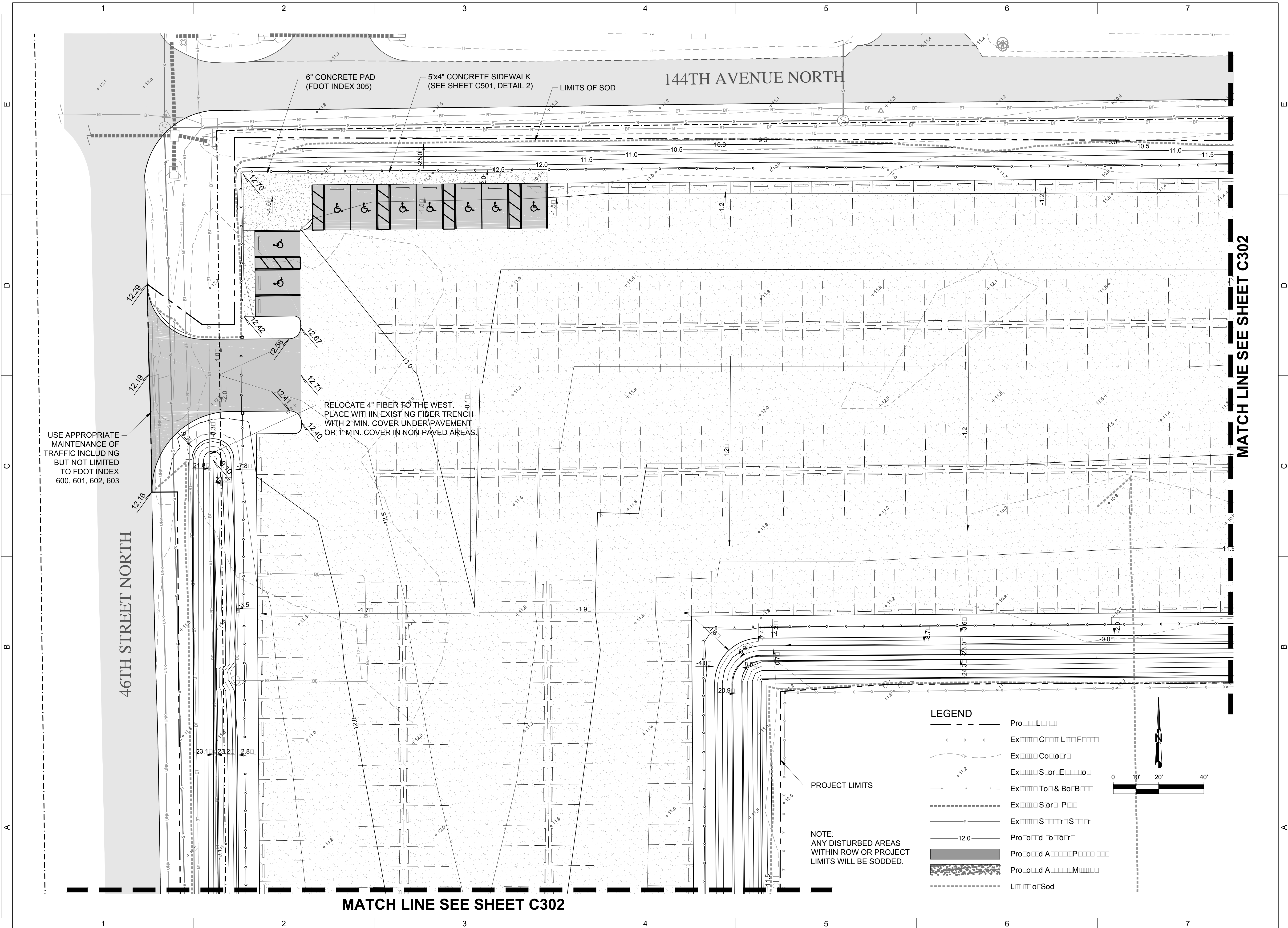
REVIEW SET

**SITE PLAN**

C201 ①

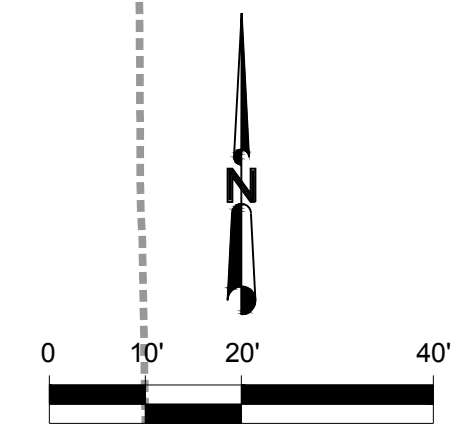


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**LEGEND**

- Pro. [Symbol] L [Symbol]
- Ex. [Symbol] C [Symbol] L [Symbol] F [Symbol]
- Ex. [Symbol] C [Symbol] o [Symbol] r [Symbol]
- Ex. [Symbol] S [Symbol] t [Symbol] o [Symbol] r [Symbol] E [Symbol] [Symbol] o [Symbol]
- Ex. [Symbol] T [Symbol] o [Symbol] & B [Symbol] o [Symbol] B [Symbol]
- Ex. [Symbol] S [Symbol] t [Symbol] o [Symbol] r [Symbol] P [Symbol]
- Ex. [Symbol] S [Symbol] t [Symbol] o [Symbol] r [Symbol] S [Symbol] t [Symbol] o [Symbol] r [Symbol]
- Pro. [Symbol] o [Symbol] d [Symbol] o [Symbol] o [Symbol] r [Symbol]
- Pro. [Symbol] o [Symbol] d [Symbol] A [Symbol] [Symbol] [Symbol] P [Symbol] [Symbol] [Symbol] [Symbol]
- Pro. [Symbol] o [Symbol] d [Symbol] A [Symbol] [Symbol] [Symbol] M [Symbol] [Symbol] [Symbol] [Symbol]
- L [Symbol] [Symbol] [Symbol] o [Symbol] Sod



**JACOBS**  
 JACOBS, INC.  
 16302 HIGHWOODS PRESERVE PARKWAY,  
 SUITE 200  
 TAMPA, FLORIDA 33647  
 813-616-4547  
 FLORIDA CERT. OF AUTHORIZATION 2822

**OVERFLOW PARKING LOT**  
 PROJECT:  
 LOCATION: ST. PETE - CLEARWATER INTERNATIONAL AIRPORT CLEARWATER, FL

**AID AMERICAN INFRASTRUCTURE DEVELOPMENT, INC.**  
 3810 NORTHDALE BOULEVARD,  
 SUITE 170  
 TAMPA, FL 33624  
 OFFICE: 813-374-2200  
 FL LICENSE C.A. No: 28731

NO.	DATE	DESCRIPTION
1	7/24/15	SWEFWD RAI.1
2	4/06/16	PINELLAS REVISIONS

ENGINEER OF RECORD

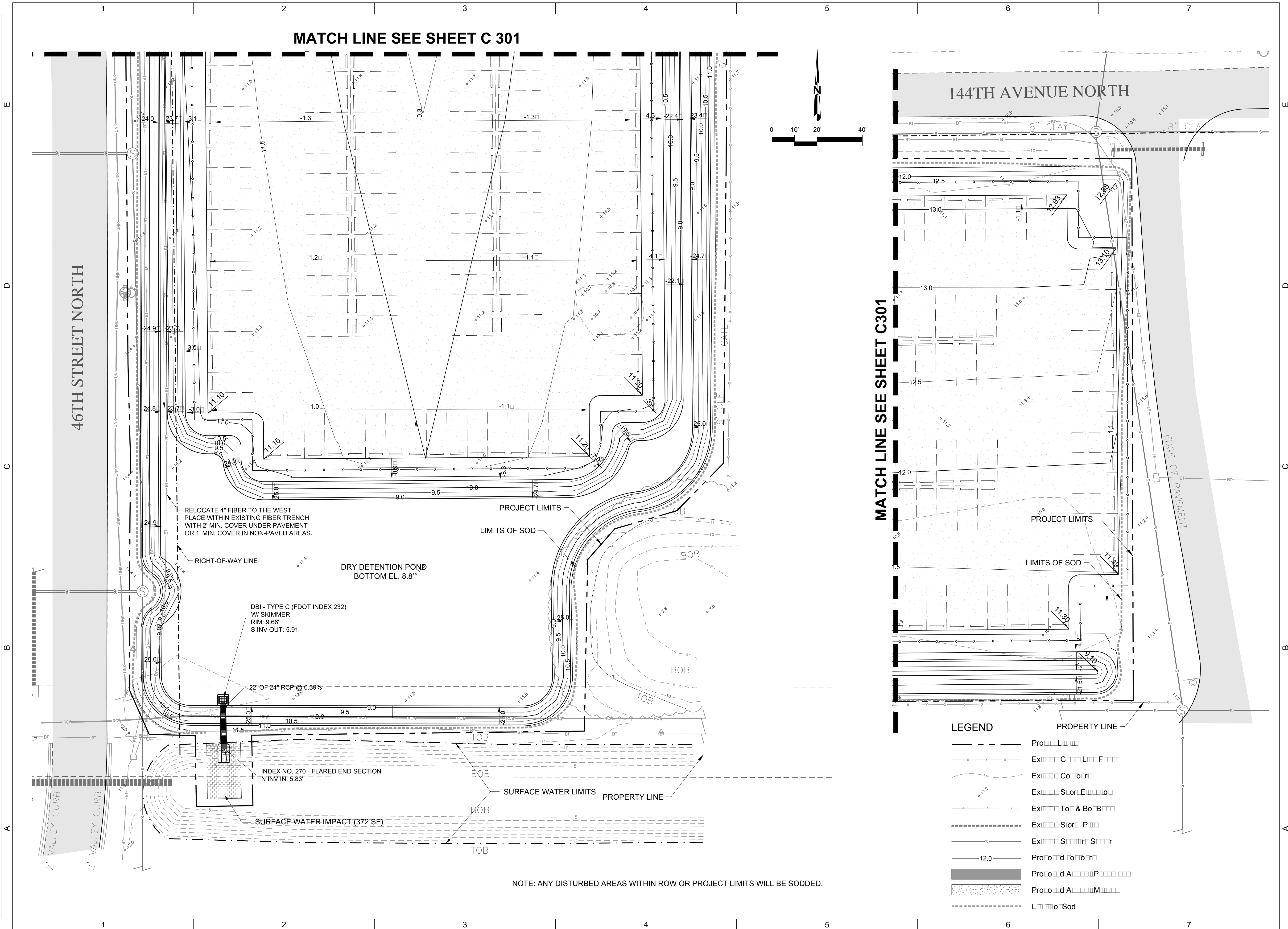
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 CHECKED BY: ES  
 PROJECT No: JAC15024

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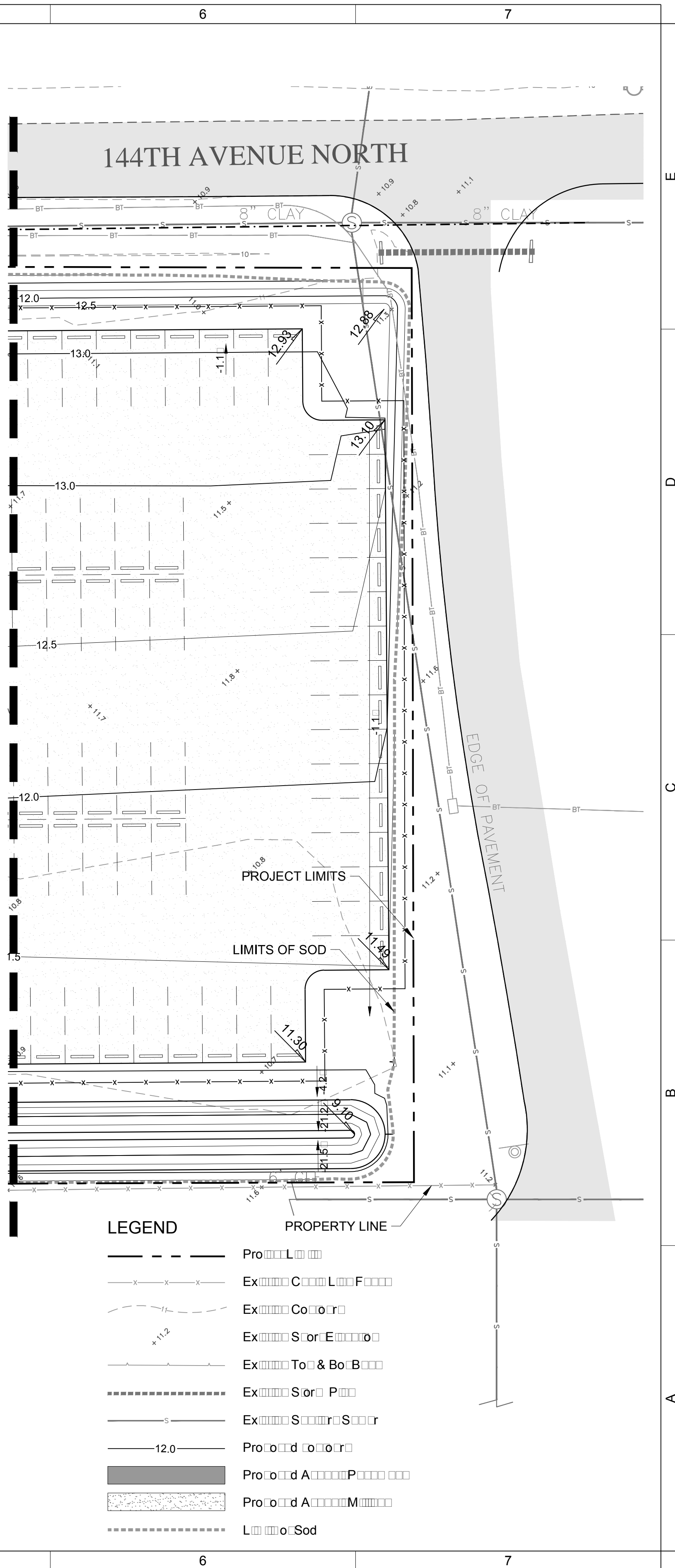
**PAVING, GRADING AND DRAINAGE PLAN**

C301

G:\1-PROJECTS\PIE\AC15024-OVERFLOW-PARKING-LOT\03-DRAWINGS\WIP\AC15024-C301-GRADING.DWG PLOT DATE: 2016-04-04



MATCH LINE SEE SHEET C301



LEGEND

- Pro... L... [Symbol]
- Ex... C... L... F... [Symbol]
- Ex... Co... [Symbol]
- Ex... S... E... [Symbol]
- Ex... To & Bo... [Symbol]
- Ex... S... P... [Symbol]
- Ex... S... [Symbol]
- Pro... [Symbol]
- Pro... A... P... [Symbol]
- Pro... A... M... [Symbol]
- L... of Sod [Symbol]

NOTE: ANY DISTURBED AREAS WITHIN ROW OR PROJECT LIMITS WILL BE SODDED.



**JACOBS**  
 JACOBS, INC.  
 16302 HIGHWOODS PRESERVE PARKWAY,  
 SUITE 200  
 TAMPA, FLORIDA 33647  
 813-615-4547  
 FLORIDA CERT. OF AUTHORIZATION 2822

PROJECT:  
**OVERFLOW PARKING LOT**  
 LOCATION: ST. PETE - CLEARWATER INTERNATIONAL AIRPORT CLEARWATER, FL

**AID**  
 AMERICAN INFRASTRUCTURE DEVELOPMENT, INC.  
 3810 NORTHALE BOULEVARD,  
 SUITE 170  
 TAMPA, FL 33624  
 OFFICE: 813-374-2200  
 FL LICENSE C.A. No: 28731

MARK	DATE	DESCRIPTION
1	7/24/15	SWEFWD RAI.1

ENGINEER OF RECORD

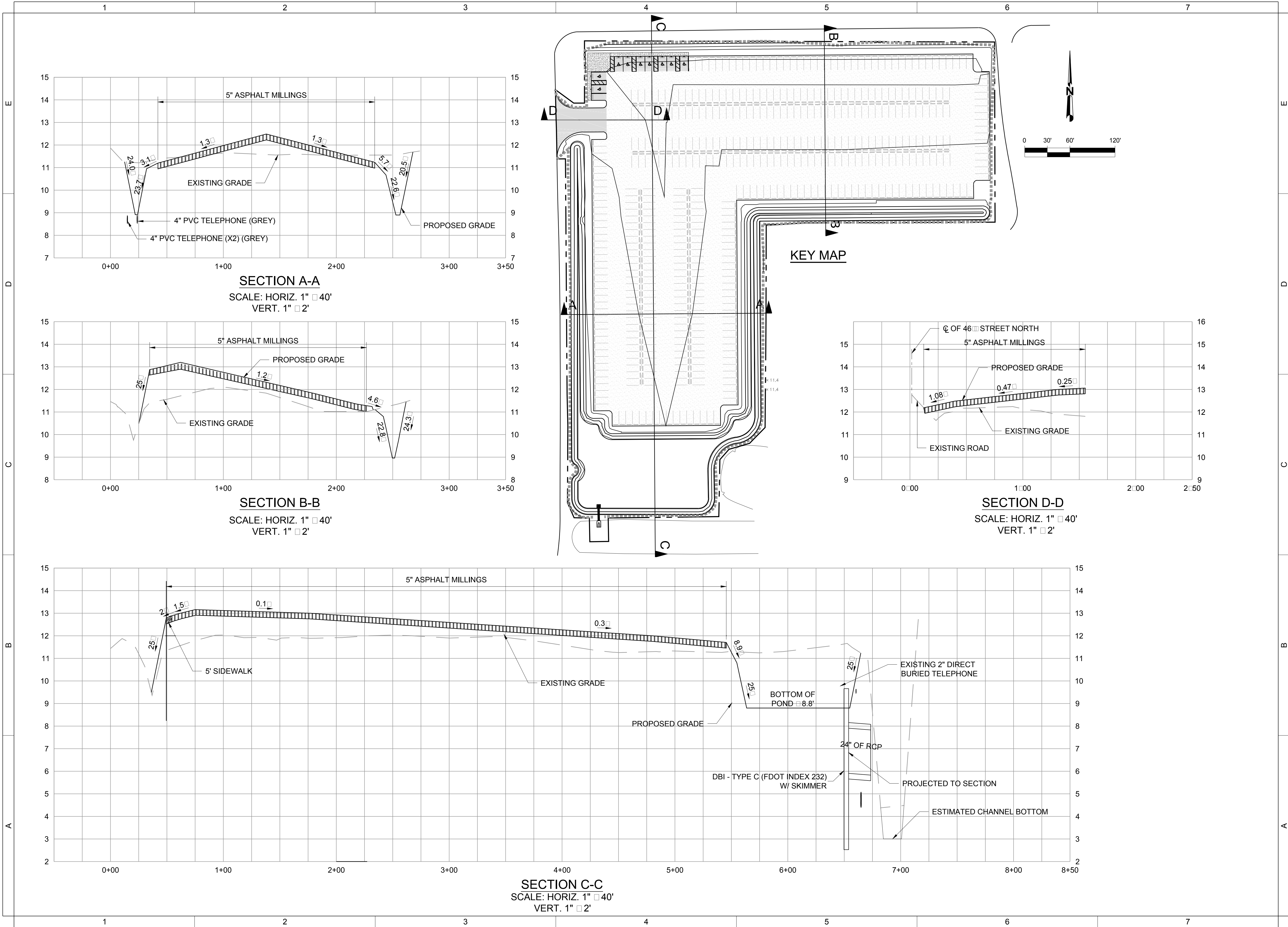
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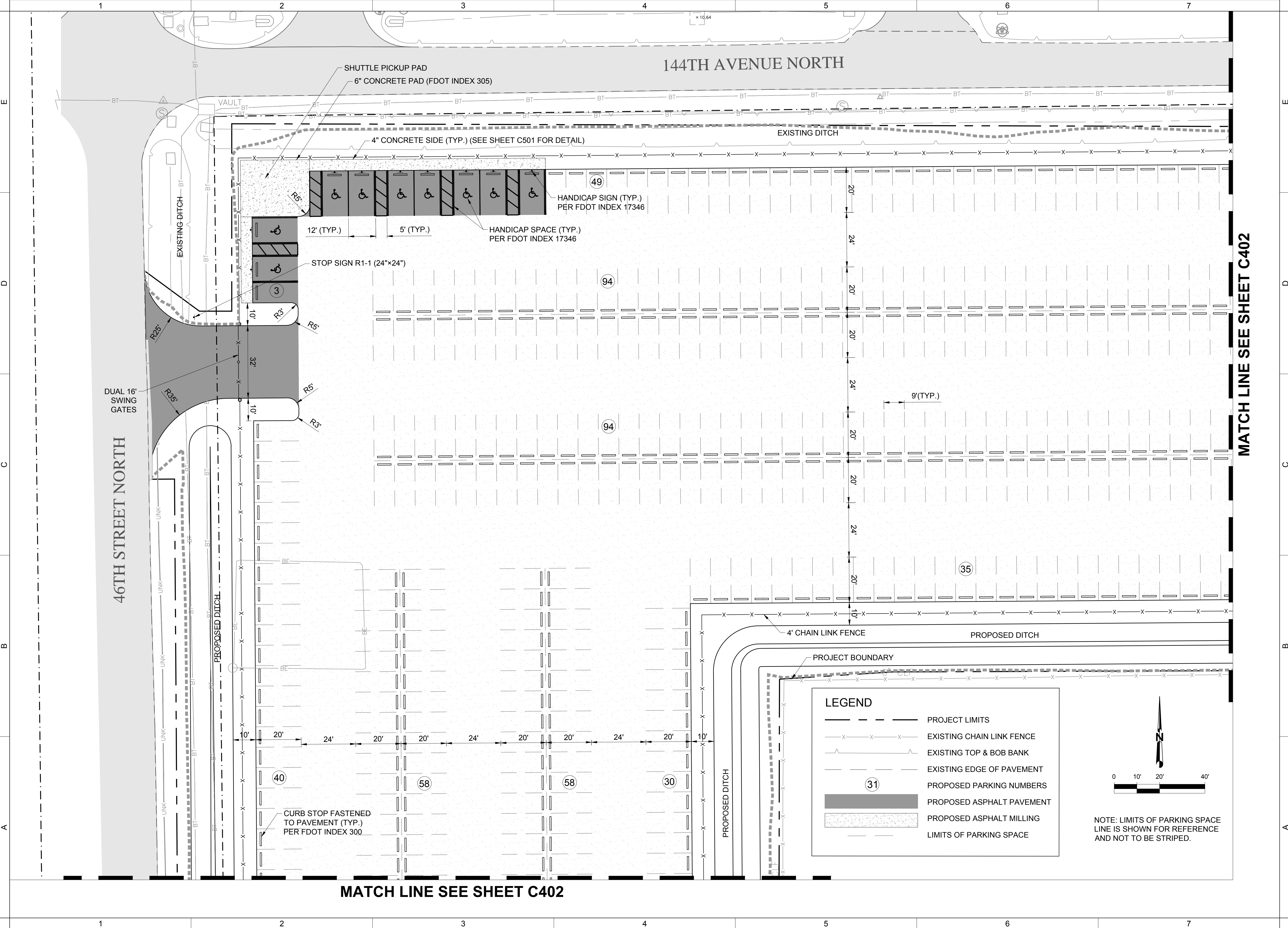
**PAVING, GRADING AND DRAINAGE PLAN**

C302

G:\1-PROJECTS\PIE\JAC15024-OVERFLOW-PARKING-LOT\03-DRAWINGS\WIP\JAC15024-C303-SECTIONS.DWG PLOT DATE:2016-04-04

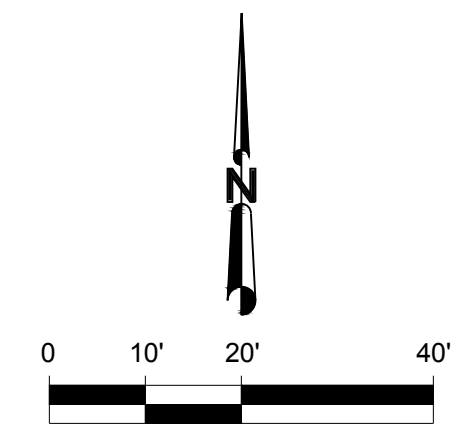


C:\1-PROJECTS\PIE\AC15024-OVERFLOW-PARKING-LOT\03-DRAWINGS\WIP\AC15024-C401\_SIGNAGE AND MARKING PLAN.DWG PLOT DATE: 2016-04-04



**LEGEND**

- PROJECT LIMITS
- x-x-x-x- EXISTING CHAIN LINK FENCE
- ~~~ EXISTING TOP & BOB BANK
- - - EXISTING EDGE OF PAVEMENT
- (31) PROPOSED PARKING NUMBERS
- PROPOSED ASPHALT PAVEMENT
- ▨ PROPOSED ASPHALT MILLING
- - - LIMITS OF PARKING SPACE



NOTE: LIMITS OF PARKING SPACE LINE IS SHOWN FOR REFERENCE AND NOT TO BE STRIPED.



**JACOBS**  
 JACOBS, INC.  
 16302 HIGHWOODS PRESERVE PARKWAY,  
 SUITE 200  
 TAMPA, FLORIDA 33647  
 813-616-4547  
 FLORIDA CERT. OF AUTHORIZATION 2822

PROJECT: **OVERFLOW PARKING LOT**  
 LOCATION: ST. PETE - CLEARWATER INTERNATIONAL AIRPORT CLEARWATER, FL

**AID**  
 AMERICAN INFRASTRUCTURE DEVELOPMENT, INC.  
 3810 NORTHALE BOULEVARD,  
 SUITE 170  
 TAMPA, FL 33624  
 OFFICE: 813-374-2200  
 FL LICENSE C.A. No: 28731

MARK	DATE	DESCRIPTION

ENGINEER OF RECORD

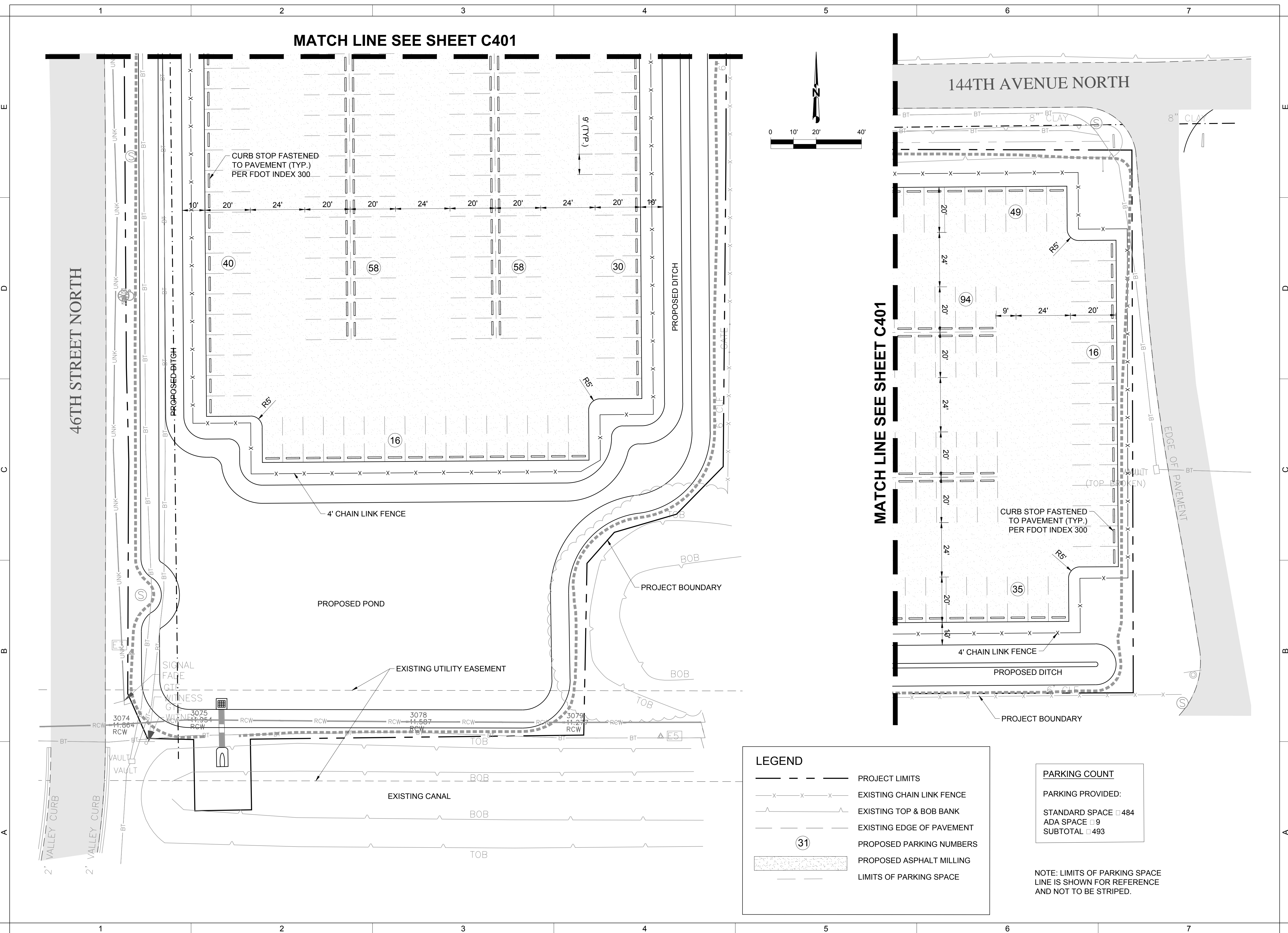
DRAWN BY: YY  
 CHECKED BY: ES  
 PROJECT No: JAC15024

REVIEW SET

**SIGNAGE AND MARKING PLAN**

C401

G:\1-PROJECTS\PIE\JAC15024-OVERFLOW-PARKING-LOT\03-DRAWINGS\WIP\JAC15024-C401\_SIGNAGE AND MARKING PLAN.DWG PLOT DATE: 2016-04-04



**JACOBS**  
 JACOBS, INC.  
 16302 HIGHWOODS PRESERVE PARKWAY,  
 SUITE 200  
 TAMPA, FLORIDA 33647  
 813-616-4547  
 FLORIDA CERT. OF AUTHORIZATION 2822

PROJECT:  
**OVERFLOW PARKING LOT**  
 LOCATION: ST. PETE - CLEARWATER INTERNATIONAL AIRPORT CLEARWATER, FL

**AID**  
 AMERICAN INFRASTRUCTURE DEVELOPMENT, INC.  
 3810 NORTHDALE BOULEVARD,  
 SUITE 170  
 TAMPA, FL 33624  
 OFFICE: 813-374-2200  
 FL LICENSE C.A. No: 28731

MARK	DATE	DESCRIPTION
	APRIL 6, 2016	ISSUE

ENGINEER OF RECORD  
 DRAWN BY: YY  
 CHECKED BY: ES  
 PROJECT No: JAC15024  
 REVIEW SET

**SIGNAGE AND MARKING PLAN**

**C402**

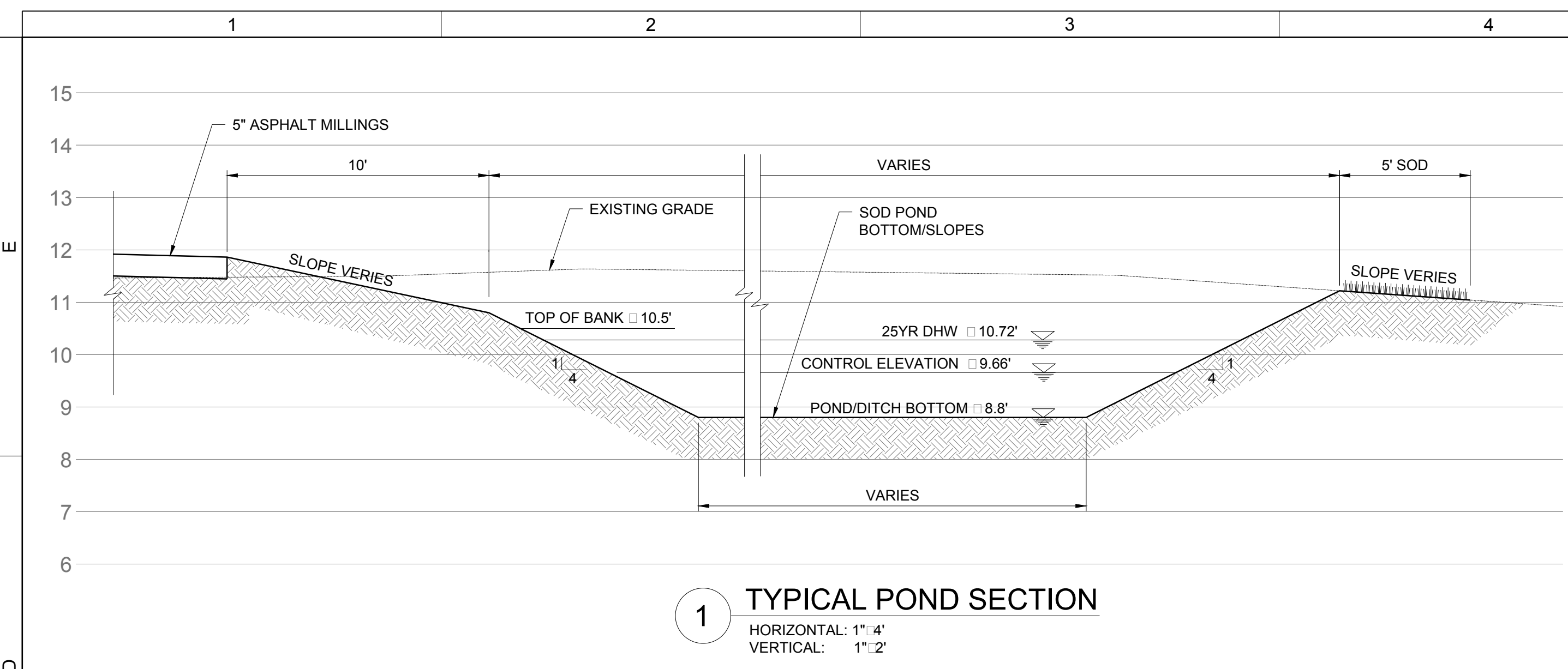
MARK	DATE	DESCRIPTION
	APRIL 6, 2016	ISSUE

ENGINEER OF RECORD  
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 CHECKED BY: ES  
 PROJECT No: JAC15024  
 REVIEW SET

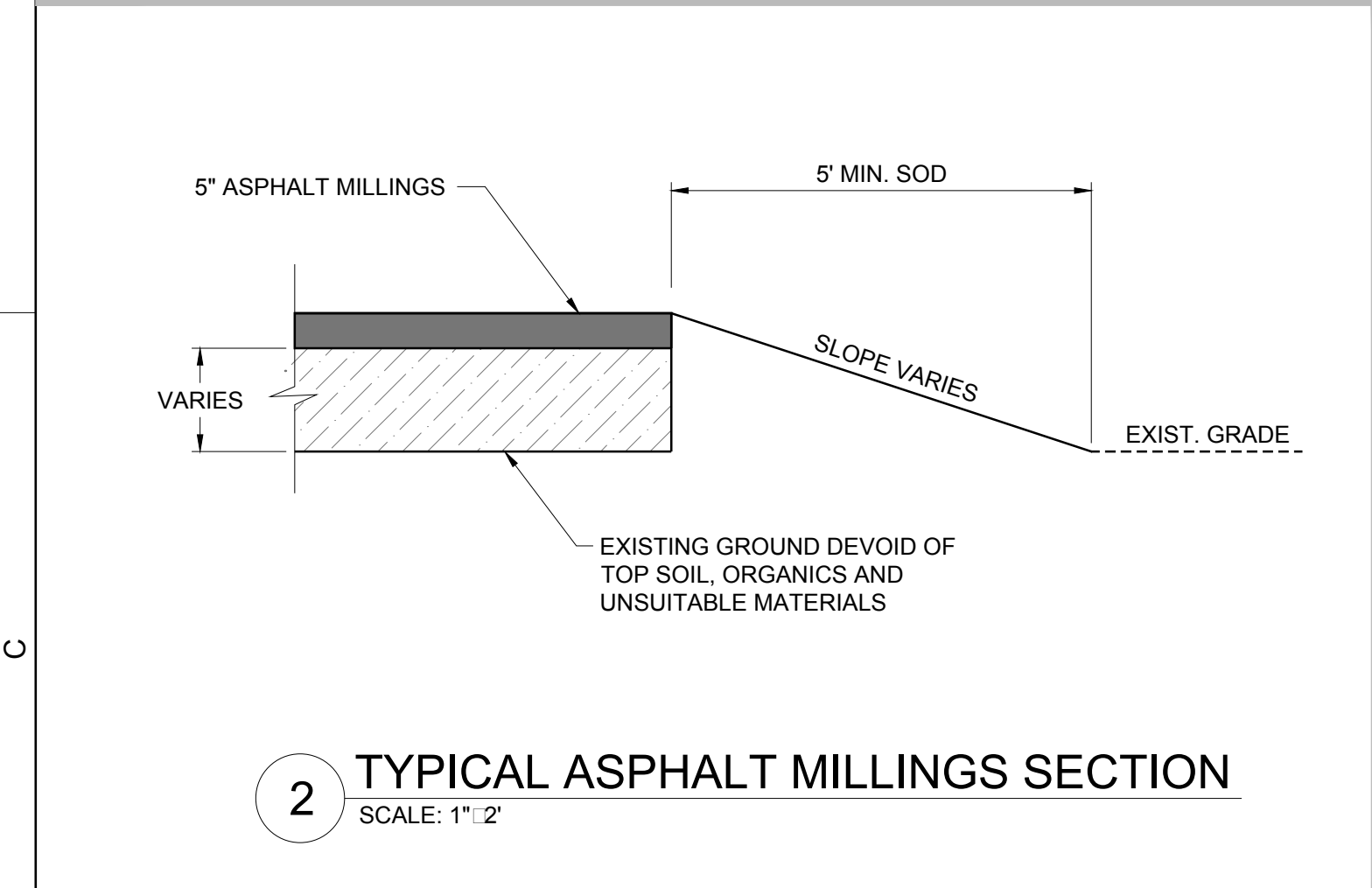
**SITE DETAILS**

C501

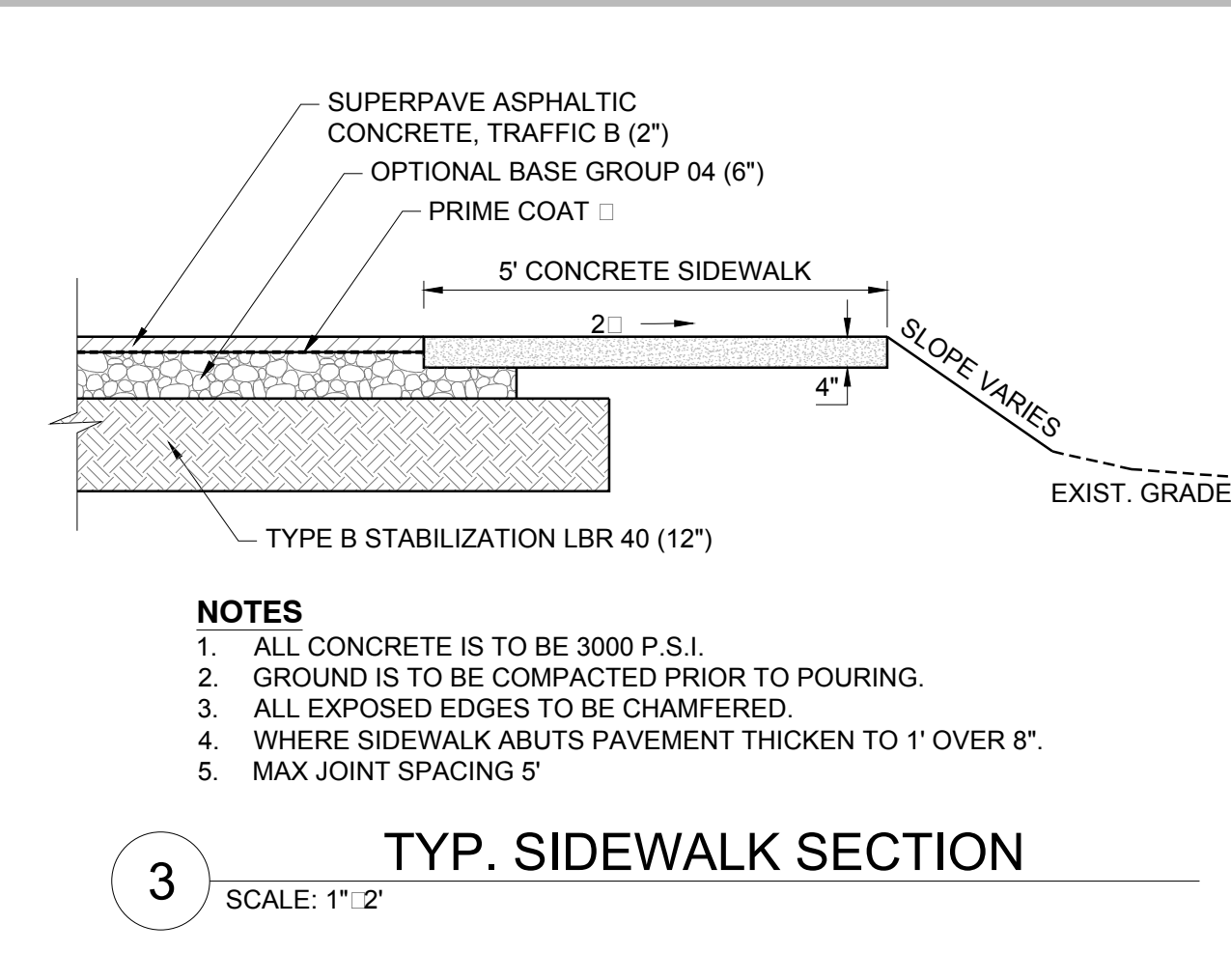
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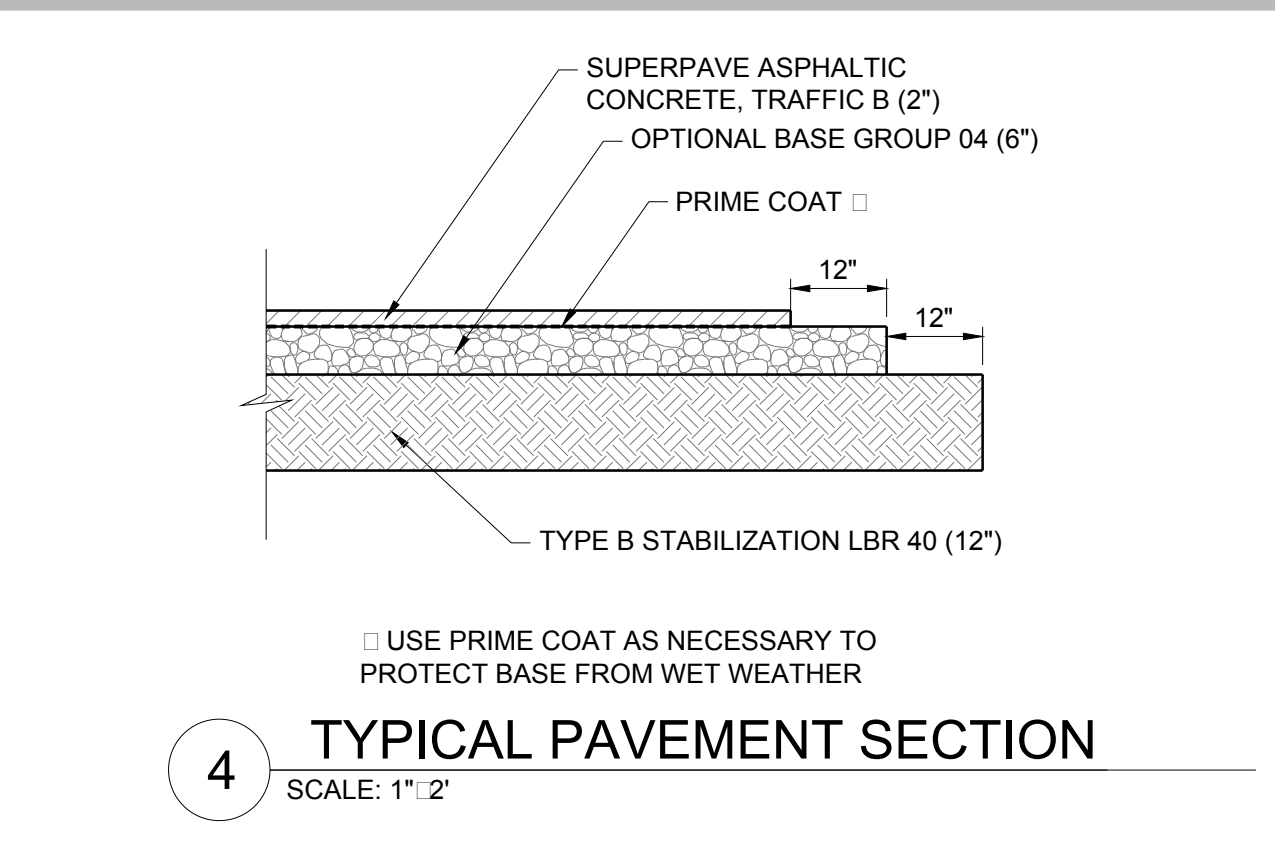
**1 TYPICAL POND SECTION**  
 HORIZONTAL: 1" = 4'  
 VERTICAL: 1" = 2'



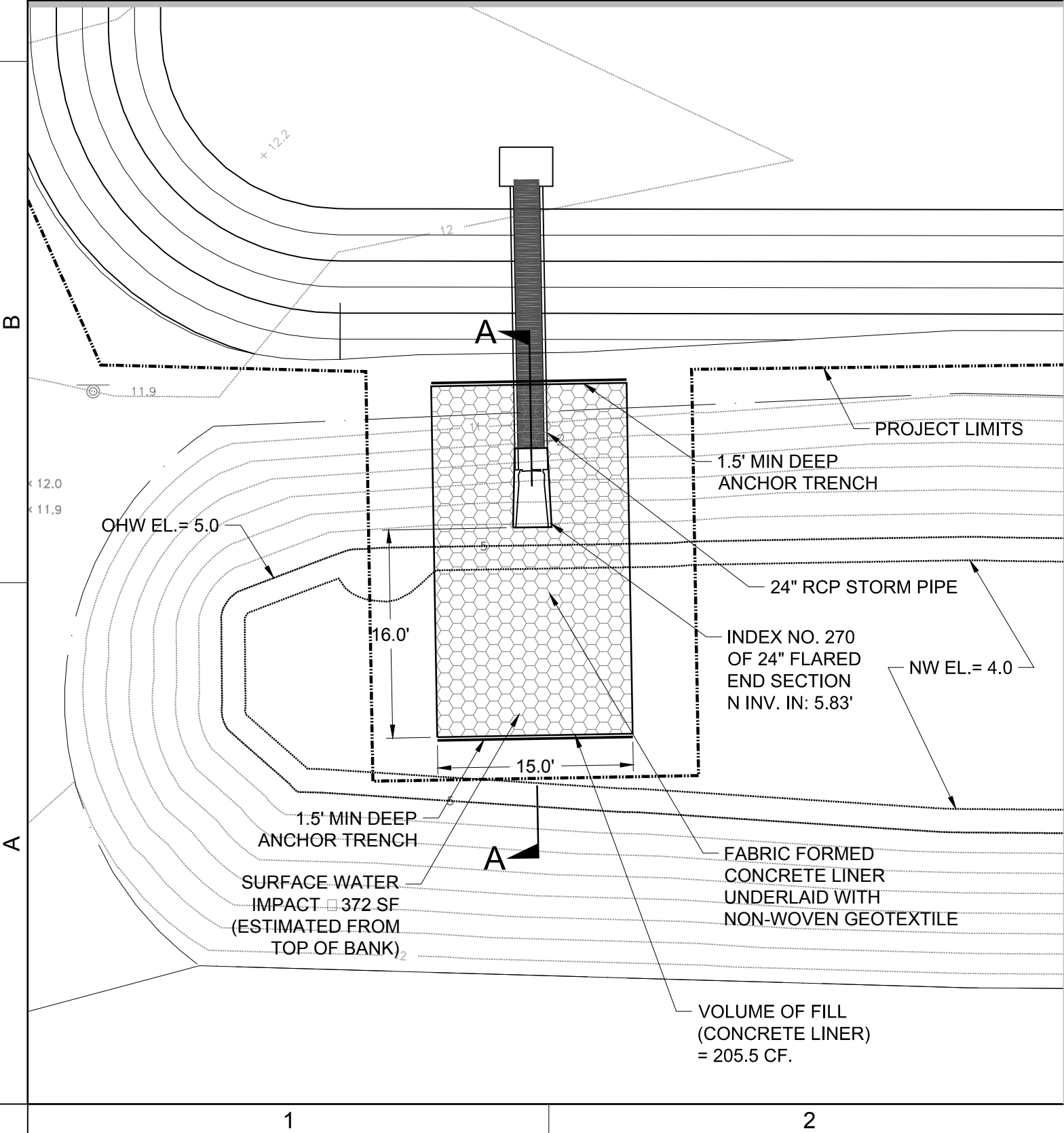
**2 TYPICAL ASPHALT MILLINGS SECTION**  
 SCALE: 1" = 2'



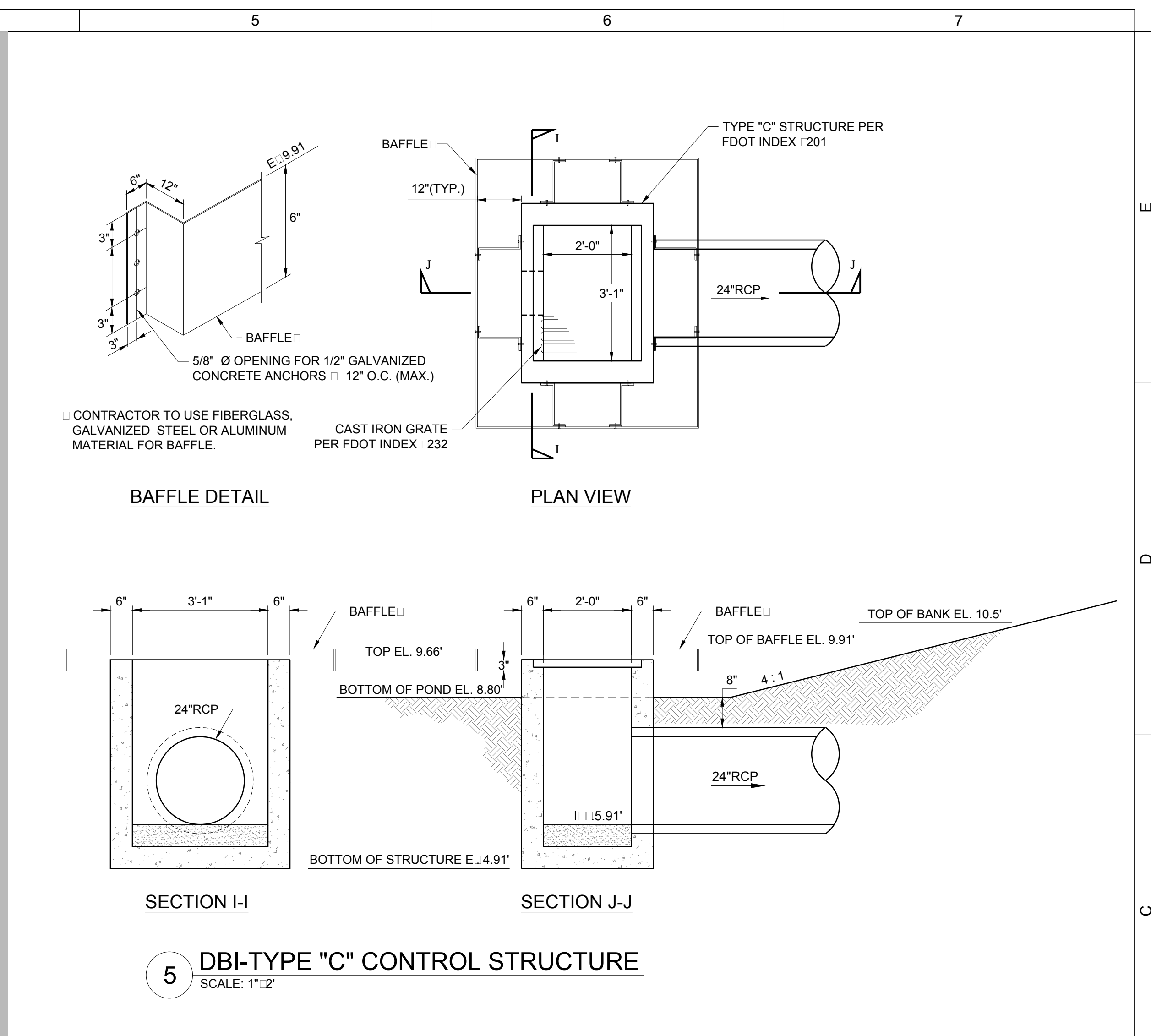
**3 TYP. SIDEWALK SECTION**  
 SCALE: 1" = 2'



**4 TYPICAL PAVEMENT SECTION**  
 SCALE: 1" = 2'

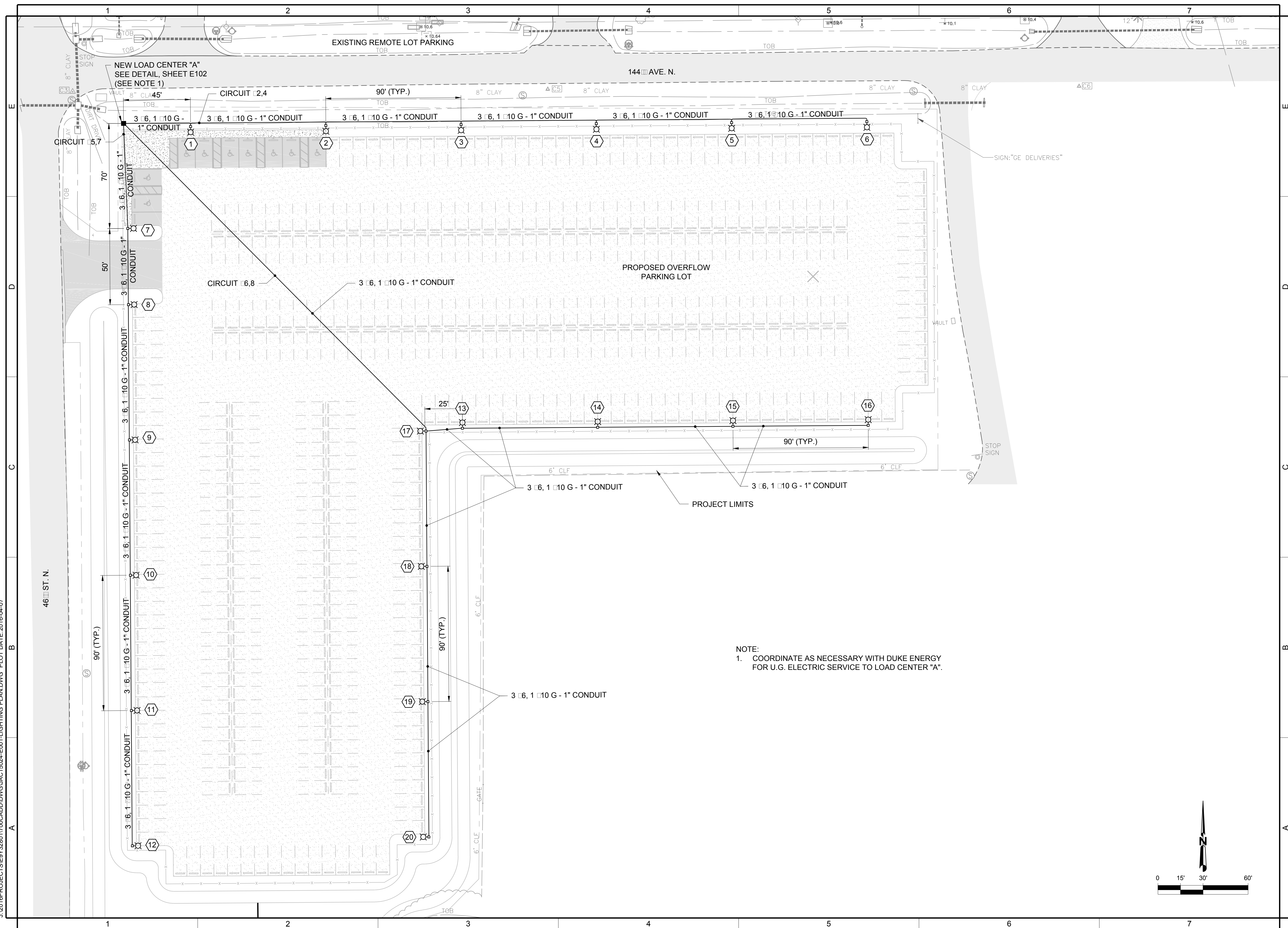


**6 SECTION A - A**  
 SCALE: 1" = 2'

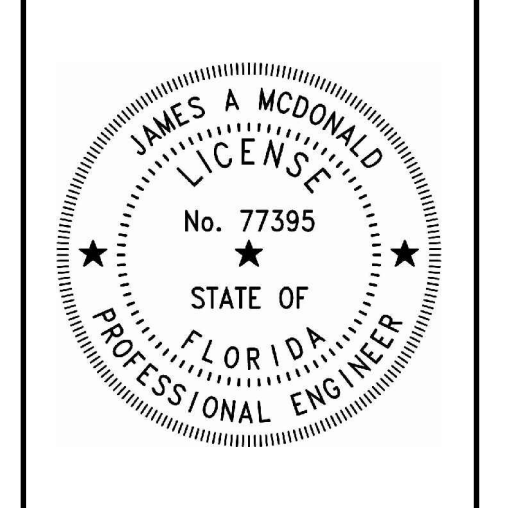
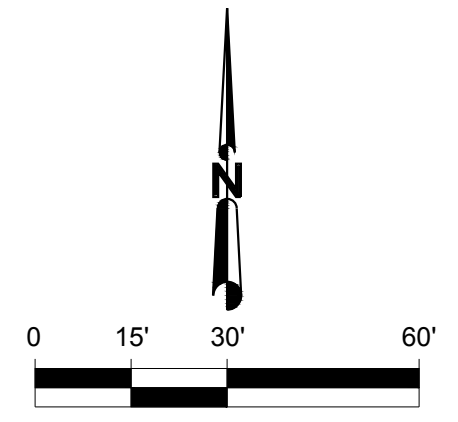


**5 DBI-TYPE "C" CONTROL STRUCTURE**  
 SCALE: 1" = 2'

J:\2018PROJECTS\ESY32801\700CADD\DWG\AC15024-E001-LIGHTING PLAN.DWG PLOT DATE: 2016-04-07



NOTE:  
1. COORDINATE AS NECESSARY WITH DUKE ENERGY FOR U.G. ELECTRIC SERVICE TO LOAD CENTER "A".



**JACOBS**  
 JACOBS, INC.  
 18302 HIGHWOODS PRESERVE PARKWAY,  
 SUITE 200  
 TAMPA, FLORIDA 33647  
 813-616-4547  
 FLORIDA CERT. OF AUTHORIZATION 2822

PROJECT:  
**OVERFLOW PARKING LOT EXPANSION**  
 LOCATION: ST. PETE - CLEARWATER INTERNATIONAL AIRPORT CLEARWATER, FL

**AID**  
 AMERICAN INFRASTRUCTURE DEVELOPMENT, INC.  
 3810 NORTHDALE BOULEVARD,  
 SUITE 170  
 TAMPA, FL 33624  
 OFFICE: 813-374-2200  
 FL LICENSE C.A. No: 28731

MARK	DATE	DESCRIPTION	ISSUE

ENGINEER OF RECORD  
 JAMES A. MCDONALD  
 FLORIDA PE LICENSE: 77395  
 DRAWN BY: JKS  
 CHECKED BY: JAM  
 PROJECT No: E9Y32801

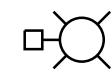
NOT FOR CONSTRUCTION  
**LIGHTING PLAN**

E001

## GENERAL NOTES

- PROJECT PAY ITEMS: ALL ELECTRICAL EQUIPMENT AND WORK TO BE INSTALLED AND PERFORMED BY THE CONTRACTOR AT EACH LOCATION SHALL BE PAID FOR BY THE PAY ITEMS PROVIDED. SEE ELECTRICAL SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS. ALL WORK IS TO BE CONSIDERED REQUIRED WORK TO COMPLETE THE PROJECT, AND IS TO BE SUBSIDIARY TO THE COST OF THE RESPECTIVE LOCATION PAY ITEM PROVIDED. ITEMS SHOWN IN LIGHT LINWEIGHT ARE EXISTING. ITEMS SHOWN IN SOLID (BOLD) ARE NEW TO BE INSTALLED UNDER THIS CONTRACT, UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS, LICENSES, ETC., PRIOR TO COMMENCEMENT OF WORK. THE COST OF PERMITS, LICENSES, ETC., SHALL BE INCIDENTAL TO AND INCLUDED IN THE BID PRICE FOR THE RESPECTIVE PAY ITEMS.
- THE PROPOSED DISTRIBUTION EQUIPMENT FOR LIGHTING CIRCUITS SHALL HAVE A MINIMUM UL LISTED SERIES INTEGRATED RATING EQUAL TO THE EXISTING SERVICE AIC RATINGS UNLESS NOTED OTHERWISE.
- CONTRACTOR SHALL FURNISH AND INSTALL ALL REQUIRED SHORT CIRCUIT AND OVERCURRENT PROTECTION REQUIRED BY THE NEC AND THESE DRAWINGS AND SPECIFICATIONS.
- SEE LIGHTING PLAN FOR CONDUCTOR AND CONDUIT SIZES.
- ALL MATERIALS, EQUIPMENT AND INSTALLATIONS SHALL COMPLY AND SHALL BE FABRICATED IN ACCORDANCE WITH CURRENT NEMA, NEC, ELECTRIC UTILITY AND OTHER APPLICABLE REQUIREMENTS AND SPECIFICATIONS.
- EQUIPMENT SHALL BE CAPABLE OF ACCEPTING THE QUANTITY AND SIZES OF CONDUCTORS SHOWN IN THE CONTRACT DOCUMENTS.
- CONTRACTOR SHALL VERIFY AND CONFIRM ACCURACY OF EXISTING CONDITIONS SHOWN ON PLANS PRIOR TO STARTING WORK.
- MAINTAIN NEC SAFE WORKING CLEARANCES.
- BOND NEW EQUIPMENT TO EXISTING GROUND SYSTEM.
- ALL CONDUITS SHALL CONTAIN ONE GROUNDING CONDUCTOR. IN ACCORDANCE WITH NFPA 70 NEC ARTICLE 250. GROUND CONDUCTOR SHALL HAVE GREEN INSULATION AS DETAILED.
- ALL EXCAVATION WITHIN 5 FEET OF AN UNDERGROUND UTILITY SHALL BE PERFORMED BY HAND EXCAVATION METHODS. ALL DAMAGE TO UTILITIES OR EXISTING STRUCTURES SHALL BE IMMEDIATELY REPORTED TO THE PROJECT MANAGER. THE PROJECT MANAGER SHALL DETERMINE WHETHER REPAIR OR REPLACEMENT IS NECESSARY. ALL REPAIR METHODS SHALL BE SUBMITTED TO THE PROJECT MANAGER FOR REVIEW AND APPROVAL PRIOR TO INITIATING THE WORK. HAND DIGGING AND PROTECTION OF EXISTING SYSTEMS SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCIDENTAL TO THE ITEM BEING INSTALLED. SEE CIVIL SHEETS FOR DEMOLITION WORK.
- THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE LOCATION OF ALL EXISTING UTILITIES WITHIN THE PROJECT LIMITS. ALSO, PRIOR TO INITIATION OF ANY CONSTRUCTION IN THE FIELD, THE CONTRACTOR SHALL PROVIDE A WRITTEN NOTICE (RETURN RECEIPT REQUESTED) TO EACH OF THE AFFECTED UTILITY COMPANIES, THE CONTRACTOR SHALL CONTACT SUNSHINE STATE ONE-CALL FLORIDA, INC. AT WWW.CALLSUNSHINE.COM 1-800-432-4770 OR TO OBTAIN UTILITY LOCATES A MINIMUM OF 2 DAYS PRIOR TO ANY EXCAVATION.
- UTILITY INFORMATION REPRESENTED IN THESE PLANS IS BASED ON AVAILABLE INFORMATION, HOWEVER IT SHOULD BE UNDERSTOOD THAT IT IS NOT TO BE INTERPRETED AS INDICATING ALL UTILITIES IN THE AREA. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE AND AVOID ALL EXISTING UTILITIES IN THE WORK AREA.
- ALL AREA DISTURBED BY CONSTRUCTION SHALL BE RESTORED TO ORIGINAL CONDITION FOLLOWING COMPLETION OF WORK. THIS SHALL INCLUDE GRASSING (SOD TO MATCH EXIST. ADJACENT GRASS VARIETY).
- PROJECT COMPLIES WITH FLORIDA ENERGY CODE 505.7.3.
- ALL CONDUCTORS SHALL BE COPPER.

## LEGEND



NEW LIGHTING POLE & FIXTURES - SEE LIGHTING PLAN



NEW CONDUIT RUN - SEE LIGHTING PLAN



INDICATES POLE NUMBER, REFER TO LIGHTING PLAN AND SCHEDULE ON THIS SHEET.

## PANEL SCHEDULE

ELECTRICAL DATA		120/240V, 1Ø, 3W												
PANEL TYPE		CUTLER HAMMER, PRLIA												
MOUNTING		SURFACE												
ENCLOSURE		NEMA 4X												
			PANEL MAIN	A	100A									
IDENTIFICATION	KVA A	KVA B	COND SIZE	WIRE SIZE AWG	AMPS TRIP C.B.	CIR NO	PHASE A B	CIR NO	AMPS TRIP C.B.	WIRE SIZE AWG	COND SIZE	KVA A	KVA B	IDENTIFICATION
TVSS	0.1		1	6	30	1		2	20	6	1	.95		PIE OVERFLOW PARKING LIGHTS
		0.1				3		4	20	6	1		.95	
PIE OVERFLOW PARKING LIGHTS	.95		1	6	20	5		6	20	6	1	1.3		PIE OVERFLOW PARKING LIGHTS
		.95				7		8	20	6	1		1.3	
		2.0	2.0			PHASE						2.25	2.25	
(SEE NOTE 1 FOR KAIC RATING)						PHASE A B						4.25	4.25	KVA

NEW LIGHTING CIRCUITS SHOWN SHALL INCLUDE GROUND WIRE (AS INDICATED ON PLAN). GROUND WIRE TO HAVE GREEN, TYPE THWN INSULATION.

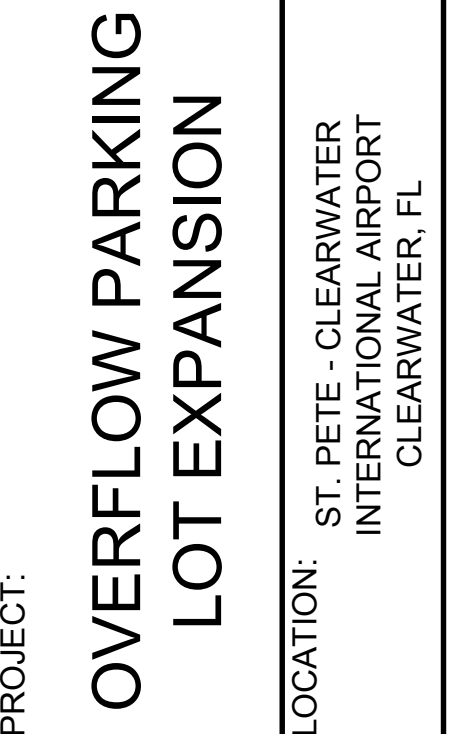
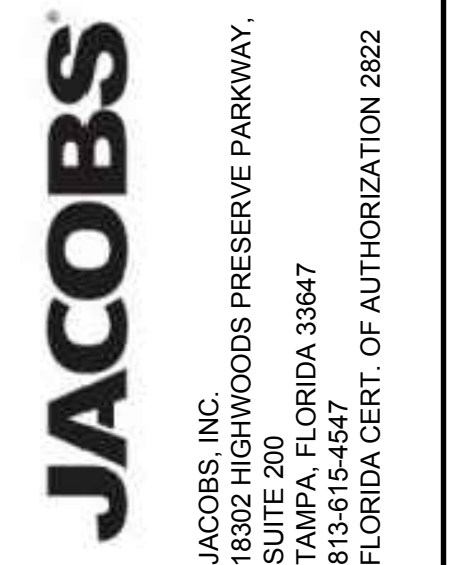
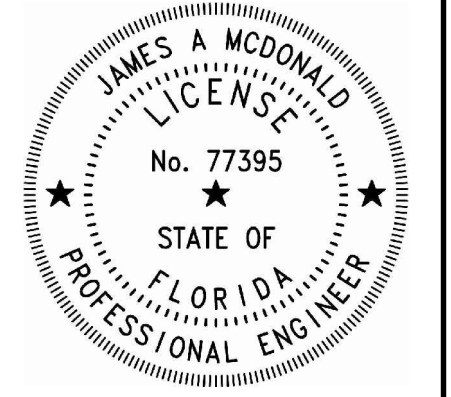
### NOTES

- NEW PARKING LOT LIGHTING DISTRIBUTION EQUIPMENT SHALL HAVE A MINIMUM UL LISTED SERIES INTEGRATED RATING TO MATCH EXISTING SERVICE SHORT CIRCUIT INTERRUPT RATING.
- THIS CONTRACTOR SHALL FURNISH AND INSTALL ALL REQUIRED OVERCURRENT PROTECTION REQUIRED BY THE NEC AND THESE DRAWINGS AND SPECIFICATIONS. THE OVERCURRENT PROTECTION SHALL BE SIZED ACCORDING TO NAMEPLATE DATA.
- SEE LIGHTING PLAN FOR CONDUCTOR AND CONDUIT SIZES NOT PROVIDED ON THIS SHEET. ALL UNGROUNDED CONDUCTORS SHALL HAVE THWN-2 INSULATION.
- CONTRACTOR SHALL AS-BUILT ACTUAL PANEL AND CIRCUIT LOADS USING TRUE RMS TEST EQUIPMENT UPON COMPLETION OF PROJECT. RECORD DATA ON RECORD DRAWINGS.
- NEW SERVICE EQUIPMENT SHALL BE 220 A.I.C. SERIES RATED.

## POLE AND LUMINAIRE SCHEDULE

POLE NO.	LOCATION	CIRCUIT NO.	LUMINAIRE/ FIXTURE	MTG. HT	LED ANGLE	POLE DETAIL	NOTES
1	OVERFLOW PARKING LOT	2,4	"PREDATOR" LARGE LED	29'	75° TILT	DETAIL "A"	
2	OVERFLOW PARKING LOT	2,4	"PREDATOR" LARGE LED	29'	75° TILT	DETAIL "A"	
3	OVERFLOW PARKING LOT	2,4	"PREDATOR" LARGE LED	29'	75° TILT	DETAIL "A"	
4	OVERFLOW PARKING LOT	2,4	"PREDATOR" LARGE LED	29'	75° TILT	DETAIL "A"	
5	OVERFLOW PARKING LOT	2,4	"PREDATOR" LARGE LED	29'	75° TILT	DETAIL "A"	
6	OVERFLOW PARKING LOT	2,4	"PREDATOR" LARGE LED	29'	75° TILT	DETAIL "A"	
7	OVERFLOW PARKING LOT	5,7	"PREDATOR" LARGE LED	29'	75° TILT	DETAIL "A"	
8	OVERFLOW PARKING LOT	5,7	"PREDATOR" LARGE LED	29'	75° TILT	DETAIL "A"	
9	OVERFLOW PARKING LOT	5,7	"PREDATOR" LARGE LED	29'	75° TILT	DETAIL "A"	
10	OVERFLOW PARKING LOT	5,7	"PREDATOR" LARGE LED	29'	75° TILT	DETAIL "A"	
11	OVERFLOW PARKING LOT	5,7	"PREDATOR" LARGE LED	29'	75° TILT	DETAIL "A"	
12	OVERFLOW PARKING LOT	5,7	"PREDATOR" LARGE LED	29'	75° TILT	DETAIL "A"	
13	OVERFLOW PARKING LOT	6,8	"PREDATOR" LARGE LED	29'	75° TILT	DETAIL "A"	
14	OVERFLOW PARKING LOT	6,8	"PREDATOR" LARGE LED	29'	75° TILT	DETAIL "A"	
15	OVERFLOW PARKING LOT	6,8	"PREDATOR" LARGE LED	29'	75° TILT	DETAIL "A"	
16	OVERFLOW PARKING LOT	6,8	"PREDATOR" LARGE LED	29'	75° TILT	DETAIL "A"	
17	OVERFLOW PARKING LOT	6,8	"PREDATOR" LARGE LED	29'	75° TILT	DETAIL "A"	
18	OVERFLOW PARKING LOT	6,8	"PREDATOR" LARGE LED	29'	75° TILT	DETAIL "A"	
19	OVERFLOW PARKING LOT	6,8	"PREDATOR" LARGE LED	29'	75° TILT	DETAIL "A"	
20	OVERFLOW PARKING LOT	6,8	"PREDATOR" LARGE LED	29'	75° TILT	DETAIL "A"	

NOTE: LUMINAIRES SHALL BE HOLOPHANE "PREDATOR" LARGE LED LUMINAIRE, 8 LED MODULE, ORDERING NUMBER: PLLED-8-4K-07A-AS-65-3-K-GP, OR APPROVED EQUIVALENT.



MARK	DATE	DESCRIPTION	ISSUE

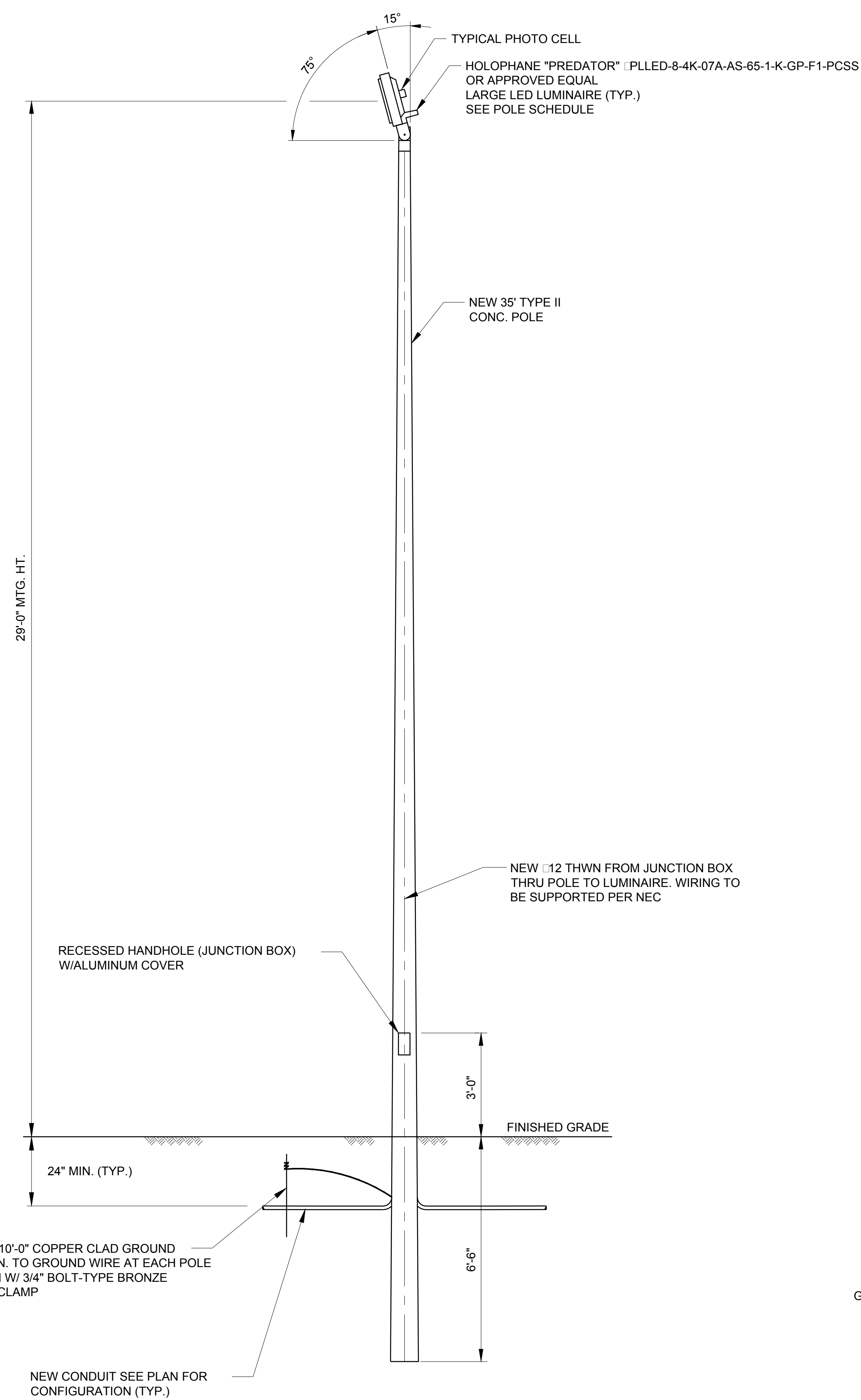
ENGINEER OF RECORD  
 JAMES A. McDONALD  
 FLORIDA PE LICENSE: 77395  
 DRAWN BY: JKS  
 CHECKED BY: JAM  
 PROJECT No: E9Y32801

NOT FOR CONSTRUCTION  
**LIGHTING SCHEDULE AND NOTES**

E101

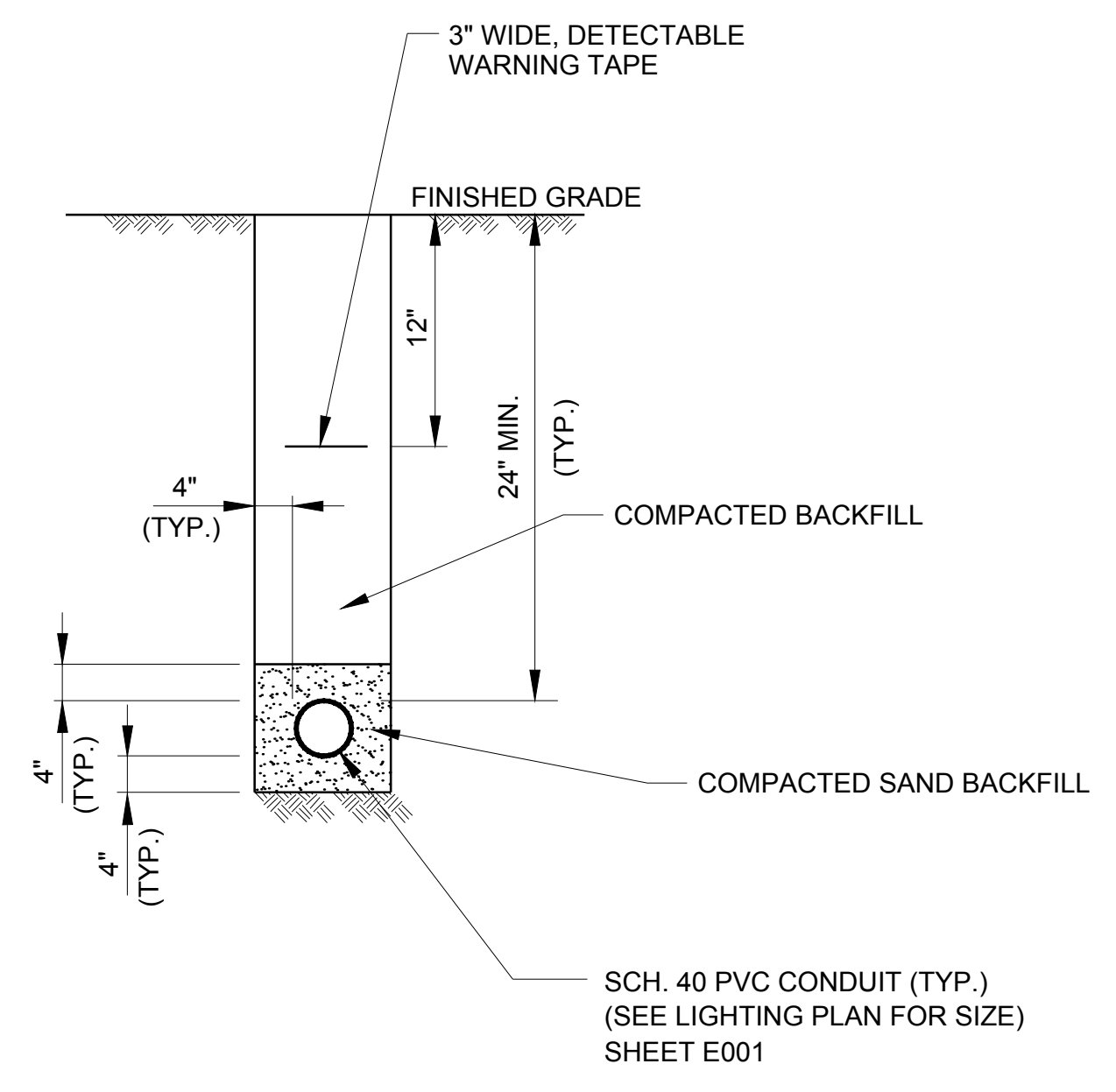


J:\2018PROJECTS\932801\700\CADD\DWG\AC15024-E-102-LIGHTING DETAILS.DWG PLOT DATE: 2016-04-07



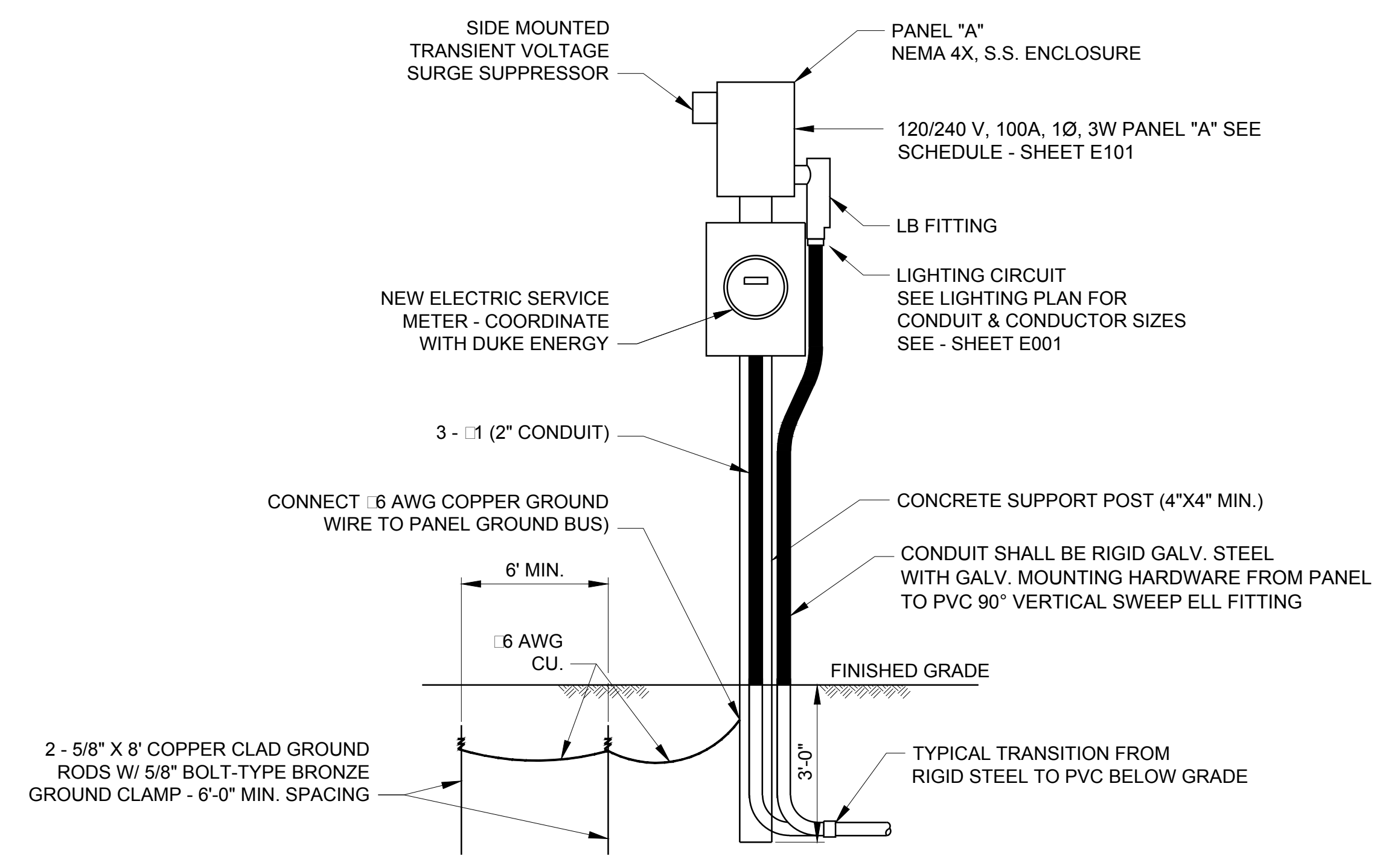
**DETAIL "A" - NEW LIGHTING POLE**

N.T.S.



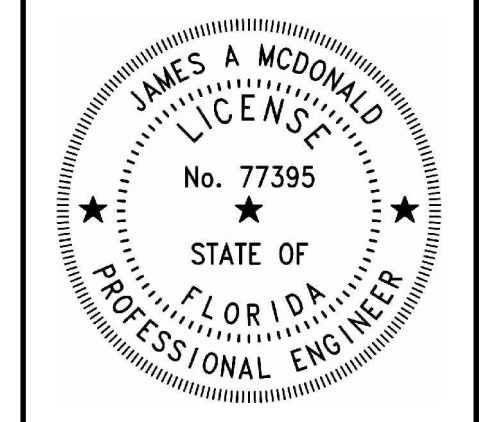
**TYPICAL DIRECT BURIED CONDUIT**

N.T.S.



**NEW LOAD CENTER "A"**

N.T.S.



**JACOBS**  
 JACOBS, INC.  
 18302 HIGHWOODS PRESERVE PARKWAY,  
 SUITE 200  
 TAMPA, FLORIDA 33647  
 813-616-4547  
 FLORIDA CERT. OF AUTHORIZATION 2822

PROJECT:  
**OVERFLOW PARKING LOT EXPANSION**  
 LOCATION: ST. PETE - CLEARWATER INTERNATIONAL AIRPORT CLEARWATER, FL

**AID**  
 AMERICAN INFRASTRUCTURE DEVELOPMENT, INC.  
 3810 NORTHDALE BOULEVARD,  
 SUITE 170  
 TAMPA, FL 33624  
 OFFICE: 813-374-2200  
 FL LICENSE C.A. No: 28731

MARK	DATE	DESCRIPTION	ISSUE

ENGINEER OF RECORD  
 JAMES A. McDONALD  
 FLORIDA PE LICENSE: 77395  
 DRAWN BY: JKS  
 CHECKED BY: JAM  
 PROJECT No: E9Y32801

NOT FOR CONSTRUCTION  
**LIGHTING DETAILS**

**E102**



**ST. PETE-CLEARWATER INTERNATIONAL  
AIRPORT**

**Technical Specifications  
FOR  
Overflow Parking Lot**

**FDOT PROJECT NUMBER:**

**Prepared By**

**JACOBS**



**ISSUED FOR CONSTRUCTION**

**April 2016**

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**Item TS – 001 Mobilization**

All work covered by this section will be paid for at the contract lump sum price for “Mobilization.” Partial payments for “Mobilization” will be made with the first and second partial pay estimates paid on the contract and will be made at the rate of 50 percent of the lump sum price for “Mobilization” on each of these partial pay estimates, less the retainage provided for in Contract. Where the amount of bid for the item of “Mobilization” exceeds 5 percent of the total amount of bid for the contract, 2-1/2 percent of the total amount of bid will be paid on each of the partial pay estimates. Any remaining amount will be paid upon completion of all work on the Contract. All such payments will be made less the retainage provided for in the Contract.

**END OF ITEM TS-001**

### Item TS – 002 FDOT Standard Specifications

The construction details which will govern the prosecution of the work as set out in the proposal and/or shown on the plans shall conform in their entirety to Divisions II and III of the Florida Department of Transportation Standard Specification for Road and Bridge Construction, current edition at the time of Bid Opening (2015), including all FDOT Supplements and as modified hereinafter and the FDOT Minimum Specifications for Traffic Control Signals and Devices. The construction details contained in the Divisions which are not required to accomplish the work set out in proposal and/or shown on the plans will have no application to these specifications.

In the event of any conflict(s) between the Contract Documents and the FDOT Standard Specifications, the precedence in resolving such conflict(s) shall be as follows:

1. Bidding and Contract requirements, and Technical Specifications for **PIE Remote Lot Expansion/Overflow Parking Lot** as located in this project Manual shall govern over FDOT Bid and Contract Requirements.
2. Higher quality and/or more stringent requirements as determined by the Engineer shall govern over lesser.

Where FDOT Specifications refer to the “Engineer”, “Engineer of Tests”, or “Division of Tests”, it shall be understood to mean the Engineer of the Owner as stated in the CONTRACT.

These standard specifications can be obtained from the Florida Department of Transportation website: <http://www.dot.state.fl.us/specificationsoffice/Implemented/SpecBooks/default.shtm>

The Contractor shall have at least one set of the standard specifications available on the project.

Division II Specifications pertinent to this project from the Standard Specifications for Road and Bridge Construction are as follows:

<b>FDOT Section</b>	<b>Description</b>
102	Maintenance of Traffic
104	Prevention, Control, and Abatement of Erosion and Water Pollution
110	Clearing and Grubbing
120	Excavation and Embankment
160	Stabilizing
285	Optional Base Course
334	Superpave Asphalt Concrete
346	Portland Cement Concrete

<b>FDOT Section</b>	<b>Description</b>
350	Cement Concrete Pavement
425	Inlets, Manholes and Junction Boxes
430	Pipe Culverts
530	Revetment Systems
550	Fencing
570	Performance Turf
700	Highway Signing
705	Object Markers and Delineators
710	Painted Pavement Markings

Specification sections not specified above but cross-referenced in the above individual sections are also included herewith and made a part of these Contract Documents.

Method of measurement and basis of payment for material and work performed in conformance with the above specifications shall be as indicated on the **BID SCHEDULE**. The unit cost bid shall be full compensation for labor, equipment, materials and incidentals necessary to complete the work in conformance with the Plans and Specifications to the satisfaction of the Owner. Incidentals include, but are not limited to, items which have specific DOT bid item numbers in the referenced specifications but are not included in the Bid Schedule.

**END OF ITEM TS-002**

**Item TS – 003 Pinellas County Utilities Standard Specifications**

The construction for adjusting, removing or relocating Pinellas County Utilities as set out in the proposal and/or shown on the plans shall conform in their entirety to Divisions 01 through 48 of the *Pinellas County Department of Environment and Infrastructure Standard Technical Specifications for Utilities and Related Work* (PCUSS) current edition at the time of Bid Opening. The construction details contained in the Divisions which are not required to accomplish the work set out in proposal and/or shown on the plans will have no application to these specifications.

In the event of any conflict(s) between the Contract Documents and the PCUSS, the precedence in resolving such conflict(s) shall be as follows:

1. Bidding and Contract requirements, and Technical Specifications for **PIE Remote Lot Expansion/Overflow Parking Lot** as located in this project Manual shall govern over the PCUSS.
2. Higher quality and/or more stringent requirements as determined by the Engineer shall govern over lesser.

Where the PCUSS refer to the “Engineer”, “Engineer of Tests”, or “Division of Tests”, it shall be understood to mean the Engineer of the Owner as stated in the CONTRACT.

These standard specifications can be obtained from the Pinellas County Technical Documents website: [http://www.pinellascounty.org/technical/pdf/eng\\_tech\\_specs.pdf](http://www.pinellascounty.org/technical/pdf/eng_tech_specs.pdf)

The Contractor shall have at least one set of the standard specifications available on the project.

Specification sections not specified above but cross-referenced in the above individual sections are also included herewith and made a part of these Contract Documents.

Method of measurement and basis of payment for material and work performed in conformance with the above specifications shall be as indicated on the **BID SCHEDULE**. The unit cost bid shall be full compensation for labor, equipment, materials and incidentals necessary to complete the work in conformance with the Plans and Specifications to the satisfaction of the Owner.

**END OF ITEM TS-003**

## ITEM TSP-L-108 UNDERGROUND POWER CABLE

### DESCRIPTION

**108-1.1** This item shall consist of furnishing and installing power cables within conduit or duct banks in accordance with these specifications at the locations shown on the plans. Also included are the installation of ground wires, ground rods and connections, cable splicing, cable marking, cable testing, and all incidentals necessary to place the cable in operating condition as a completed unit to the satisfaction of the Engineer. This item shall not include the installation of duct banks or conduit, trenching and backfilling for duct banks or conduit, or furnishing or installation of any cable for FAA facilities. Requirements and payment for trenching and backfilling for the installation of underground conduit and duct banks is covered under Item L-110 “Airport Underground Electrical Duct Banks and Conduits.”

### EQUIPMENT AND MATERIALS

#### 108-2.1 GENERAL.

- a. Lighting equipment and materials covered by referenced specifications shall be subject to acceptance through manufacturer’s certification of compliance with the applicable specification, when requested by the Engineer.
- b. Manufacturer’s certifications shall not relieve the Contractor of the Contractor’s responsibility to provide materials in accordance with these specifications and acceptable to the Engineer. Materials supplied and/or installed that do not materially comply with these specifications shall be removed, when directed by the Engineer and replaced with materials, which do comply with these specifications, at the sole cost of the Contractor.
- c. All materials and equipment used to construct this item shall be submitted to the Engineer for approval prior to ordering the equipment. Submittals consisting of marked catalog sheets or shop drawings shall be provided. Submittal data shall be presented in a clear, precise and thorough manner. Original catalog sheets are preferred. Photocopies are acceptable provided they are as good a quality as the original. Clearly and boldly mark each copy to identify pertinent products or models applicable to this project. Indicate all optional equipment and delete non-pertinent data. Submittals for components of electrical equipment and systems shall identify the equipment for which they apply on each submittal sheet. Markings shall be boldly and clearly made with arrows or circles (highlighting is not acceptable). Contractor is solely responsible for delays in project accruing directly or indirectly from late submissions or resubmissions of submittals.
- d. The data submitted shall be sufficient, in the opinion of the Engineer, to determine compliance with the plans and specifications. The Contractor’s submittals shall be neatly bound in a properly sized 3-ring binder, tabbed by specification section. The Engineer reserves the right to reject any and all equipment, materials or procedures, which, in the Engineer’s opinion, does not meet the system design and the standards and codes, specified herein.
- e. All equipment and materials furnished and installed under this section shall be guaranteed against defects in materials and workmanship as specified in the Contract between the Contractor and the Owner. The defective materials and/or equipment shall be repaired or replaced, at the Owner’s discretion, with no additional cost to the Owner.
- f. Required Submittals (5 Copies):



### Conductors

**108-2.2 CABLE.** Wire for electrical circuits up to 600 volts shall comply with Specification L-824 and/or Federal Specification J-C-30 and shall be type THWN-2.

Cable type, size, number of conductors, strand and service voltage shall be as specified on the plans.

**108-2.3 BARE COPPER WIRE (BARE COPPER WIRE GROUND AND GROUND RODS).** Wire for ground installations for lighting systems shall be of the size specified on the plans, and shall conform to the requirements of ASTM D 33.

Ground rods shall be copper clad steel. The ground rods shall be of the length and diameter specified on the plans, but in no case shall they be less than 8-feet (240 cm) long nor less than 5/8 in (15 mm) in diameter.

**108-2.4 CABLE CONNECTIONS.** Connections of underground secondary conductors shall be made within pull boxes or at devices and shall utilize method as appropriate for the location and type of installation according to applicable codes and standards. No separate payment will be made for cable connections.

### CONSTRUCTION METHODS

**108-3.1 GENERAL.** The Contractor shall install the specified cable at the approximate locations indicated on the plans.

**108-3.2 INSTALLATION IN DUCT BANKS OR CONDUITS.** This item includes the installation of the cable in duct banks or conduit as described below. The maximum number and voltage ratings of cables installed in each single duct or conduit, and the current-carrying capacity of each cable shall be in accordance with the latest National Electric Code, or the code of the local agency or authority having jurisdiction.

The Contractor shall make no connections or splices of any kind in cables installed in conduits or duct banks.

Duct banks or conduits shall be installed as a separate item in accordance with Item L-110, "Underground Electrical Duct Banks and Conduit." The Contractor shall run a mandrel through duct banks or conduit prior to installation of cable to insure that the duct bank or conduit is open, continuous and clear of debris. Mandrel size shall be compatible with conduit size. The Contractor shall swab out all conduits/ducts IMMEDIATELY prior to pulling cable. Once cleaned and swabbed, all accessible points of entry to the duct/conduit system shall be kept closed except when installing cables. Cleaning of ducts is incidental to the pay item of the item being cleaned. All raceway systems left open, after initial cleaning, for any reason shall be recleaned at the Contractor's expense. The Contractor shall verify existing ducts proposed for use in this project as clear and open. The Contractor shall notify the Engineer of any blockage in the existing ducts. The cable shall be installed in a manner to prevent harmful stretching of the conductor, injury to the insulation, or damage to the outer protective covering. The ends of all cables shall be sealed with moisture-seal tape providing moisture-tight mechanical protection with minimum bulk, or alternately, heat shrinkable tubing before pulling into the conduit and it shall be left sealed until connections are made. Where more than one cable is to be installed in a conduit, all cable shall be pulled in the conduit at the same time. The pulling of a cable through duct banks or conduits may be accomplished by hand winch or power winch with the use of cable grips or pulling eyes. Maximum pulling tensions shall be governed by cable manufacturer's recommendations. A non-hardening lubricant recommended for the type of cable being installed shall be used where pulling lubricant is required.

Contractor shall submit pulling tension values to the Engineer prior to any cable installation. If required by the Engineer, pulling tension values for cable pulls shall be monitored by a dynamometer in the presence of the Engineer. Cable pull tensions shall be recorded by the Contractor and reviewed by the Engineer. Cables exceeding the maximum allowable pulling tension values shall be removed and replaced by the Contractor at the Contractor's expense.

The manufacturer's minimum bend radius or the NEC requirements whichever is more restrictive shall apply. Cable installation, handling and storage shall be per manufacturer's recommendations. During cold weather,

particular attention shall be paid to the manufacturer's minimum installation temperature. Cable shall not be installed when the temperature is at or below the manufacturer's minimum installation temperature. At the Contractor's option, the Contractor may submit a plan, for review by the Engineer, for heated storage of the cable and maintenance of an acceptable cable temperature during installation when temperatures are below the manufacturer's minimum cable installation temperature.

Cable shall not be dragged across manhole edges, pavement or earth. When cable must be coiled, lay cable out on a canvas tarp or use other appropriate means to prevent abrasion to the cable jacket.

**108-3.3 TESTING.** The Contractor shall furnish all necessary equipment and appliances for testing the airport electrical systems and underground cable circuits before and after installation. The Contractor shall perform all tests in the presence of the Engineer. The Contractor shall demonstrate the electrical characteristics to the satisfaction of the Engineer. All costs for testing are incidental to the respective item being tested. For phased projects, the tests must be completed by phase and results meeting the specifications below must be maintained by the Contractor throughout the entire project as well as during the ensuing warranty period.

Earth resistance testing methods shall be submitted to the Engineer for approval. Earth resistance testing results shall be recorded on an approved form and testing shall be performed in the presence of the Engineer. All such testing shall be at the sole expense of the Contractor.

Should the ground conductors be damaged or suspected of being damaged by construction activities the Contractor shall test the conductors for continuity with a low resistance ohmmeter. The conductors shall be isolated such that no parallel path exists and tested for continuity. The Engineer shall approve of the test method selected. All such testing shall be at the sole expense of the Contractor.

After installation, the Contractor shall test and demonstrate to the satisfaction of the Engineer the following:

- a. That all affected lighting power and control circuits (existing and new) are continuous and free from short circuits.
- b. That all affected circuits (existing and new) are free from unspecified grounds.
- c. That the insulation resistance to ground of all new non-grounded series circuits or cable segments is not less than 50 megohms.
- d. That the insulation resistance to ground of all non-grounded conductors of new multiple circuits or circuit segments is not less than 50 megohms.
- e. That all affected circuits (existing and new) are properly connected in accordance with applicable wiring diagrams.
- f. That all affected circuits (existing and new) are operable. Tests shall be conducted that include operating each control not less than 10 times and the continuous operation of each lighting and power circuit for not less than 1/2 hour.
- g. That the impedance to ground of each ground rod does not exceed 25 ohms prior to establishing connections to other ground electrodes. The fall-of-potential ground impedance test shall be used, as described by ANSI/IEEE Standard 81, to verify this requirement.

Two copies of tabulated results of all cable tests performed shall be supplied by the Contractor to the Engineer. Where connecting new cable to existing cable, ground resistance tests shall be performed on the new cable prior to connection to the existing circuit.

There are no approved "repair" procedures for items that have failed testing other than complete replacement.

METHOD OF MEASUREMENT

**108-4.1** Cable or ground wire installed in trench, duct bank or conduit shall be measured by the number of linear feet (meters) of cable or ground wire installed in duct bank or conduit, including ground rods and grounding connectors ready for operation, and accepted as satisfactory. Separate measurement shall be made for each cable or ground wire installed in duct bank or conduit. The measurement for this item shall not include additional quantities required for slack. Cable and ground wire slack is considered incidental to this item and is included in the contractor's unit price. No separate measurement or payment will be made for cable or ground wire slack.

BASIS OF PAYMENT

**108-5.1** Payment will be made at the contract unit price for cable and equipment ground installed in duct bank or conduit, in place by the Contractor and accepted by the Engineer. This price shall be full compensation for furnishing all materials and for all preparation and installation of these materials, and for all labor, equipment, tools, and incidentals, including ground rods and ground connectors necessary to complete this item.

Payment will be made under:

Item L-108-1	1/C #6 AWG Stranded Copper, THWN, Installed in Duct or Conduit - per linear foot
Item L-108-2	1/C #10 AWG Stranded Copper, THWN, (Green), Installed in Duct or Conduit - per linear foot

MATERIAL REQUIREMENTS

AC 150/5345-7	Specification for L-824 Underground Electrical Cable for Airport Lighting Circuits
FED SPEC J-C-30	Cable and Wire, Electrical Power, Fixed Installation (cancelled; replaced by A-A-59544 Cable and Wire, Electrical (Power, Fixed Installation))
ASTM B 3	Soft or Annealed Copper Wire

REFERENCE DOCUMENTS

NFPA No. 70	National Electrical Code (NEC)
MIL-S-23586C	Sealing Compound, Electrical, Silicone Rubber
NN	Building Industry Consulting Service International (BICSI)
ANSI/IEEE Std 81	IEEE Guide for Measuring Earth Resistivity, Ground Impedance, and Earth Surface Potentials of a Ground System

END OF SECTION TSP-L-108

## ITEM TSP-L-110 AIRPORT UNDERGROUND ELECTRICAL DUCT BANKS AND CONDUITS

### DESCRIPTION

**110-1.1 CONDUITS WITHOUT CONCRETE ENCASEMENT.** Trenches for single-conduit lines shall be not less than 6 in nor more than 12 in wide, and the trench for 2 or more conduits installed at the same level shall be proportionately wider. Trench bottoms for conduits without concrete encasement shall be made to conform accurately to grade so as to provide uniform support for the conduit along its entire length.

Unless otherwise shown on the plans, a layer of fine earth material, at least 4 in (100 mm) thick (loose measurement) shall be placed in the bottom of the trench as bedding for the conduit. The bedding material shall consist of soft dirt, sand or other fine fill, and it shall contain no particles that would be retained on a 1/4 in (6 mm) sieve. The bedding material shall be tamped until firm. Flowable backfill may alternatively used.

Unless otherwise shown on plans, conduits shall be installed so that the tops of all conduits are at least 24 in below the finished grade.

When two or more individual conduits intended to carry conductors of equivalent voltage insulation rating are installed in the same trench without concrete encasement, they shall be spaced not less than 2 in apart (measured from outside wall to outside wall) in a horizontal direction and not less than 6 in apart in a vertical direction. Where two or more individual conduits intended to carry conductors of differing voltage insulation rating are installed in the same trench without concrete encasement, they shall spaced not less than 3 in apart (measured from outside wall to outside wall) in a horizontal direction and not less than 6 in apart in a vertical direction.

Trenches shall be opened the complete length between normal termination points before conduit is installed so that if any unforeseen obstructions are encountered, proper provisions can be made to avoid them.

All equipment and materials furnished and installed under this section shall be guaranteed against defects in materials and workmanship as specified in the Contract between the Contractor and the Owner. The defective materials and/or equipment shall be repaired or replaced, at the Owner's discretion, with no additional cost to the Owner.

Required Submittals (5 Copies):

Conduit and fittings

Marking (Locator) Tape

**110-1.2 BACKFILLING FOR CONDUITS.** For conduits, 4 in of sand, soft earth, or other fine fill (loose measurement) shall be placed around the conduits ducts and carefully tamped around and over them with hand tampers. The remaining trench shall then be backfilled and compacted in accordance with the specifications except that material used for back fill shall be select material not larger than 4 in diameter.

Flowable backfill may alternatively be used.

Trenches shall not contain pools of water during backfilling operations.

The trench shall be completely backfilled and tamped level with the adjacent surface: except that, where sod is to be placed over the trench, the backfilling shall be stopped at a depth equal to the thickness of the sod to be used, with proper allowance for settlement.

Any excess excavated material shall be removed and disposed of in accordance with instructions issued by the Engineer.

**110-1.3 RESTORATION.** Where sod has been removed, it shall be replaced as soon as possible after the backfilling is completed. All areas disturbed by the work shall be restored to its original condition. The restoration shall include sodding to match the existing (pre-construction) conditions. Sod variety shall be consistent with the area immediately adjacent to the work area area. The Contractor shall be held responsible for maintaining all disturbed surfaces and replacements until final acceptance. All restoration shall be considered incidental to the respective L-110 pay item.

#### METHOD OF MEASUREMENT

**110-3.1** Underground conduits and duct banks shall be measured by the linear feet of conduits and duct banks installed, locator tape, trenching and backfill with designated material, conflict resolution, all measured in place, completed, and accepted. Separate measurement shall be made for the various types and sizes.

#### BASIS OF PAYMENT

**110-4.1** Payment will be made at the contract unit price per linear foot for each type and size of conduit and duct bank, locator tape completed and accepted, including trench and backfill with the designated material. This price shall be full compensation for furnishing all materials and for all preparation, assembly, and installation of these materials, and for all labor, equipment, tools, and incidentals necessary to complete this item in accordance with the provisions and intent of the plans and specifications.

**Payment** will be made under:

Item L-110-1            1 way 1” Schedule 40 PVC Direct Buried Conduit - per linear foot

#### MATERIAL REQUIREMENTS

Fed. Spec. W-C-1094	Conduit and Conduit Fittings; Plastic, Rigid (cancelled; replaced by UL 514 Boxes, Nonmetallic Outlet, Flush Device Boxes, & Covers, and UL 651 Standard for Conduit & Hope Conduit, Type EB & A Rigid PVC)
Underwriters Laboratories Standard 514B	Fittings for Cable and Conduit
Underwriters Laboratories Standard 651	Schedule 40 and 80 Rigid PVC Conduit (for Direct Burial)
Underwriters Laboratories Standard 651A	Type EB and A Rigid PVC Conduit and HDPE Conduit

END OF SECTION TSP-L-110

## ITEM TSP-L-115 ELECTRICAL JUNCTION STRUCTURES (PULL BOXES)

### DESCRIPTION

**115-1.1** This item shall consist of electrical junction structures (pull boxes) installed in accordance with this specification, at the indicated locations and conforming to the lines, grades and dimensions shown on the plans or as required by the Engineer. This item shall include the installation of each electrical junction structure with all associated excavation, backfilling and restoration of surfaces to the satisfaction of the Engineer.

### EQUIPMENT AND MATERIALS

#### 115-2.1 GENERAL.

- a. All equipment and materials covered by referenced specifications shall be subject to acceptance through manufacturer's certification of compliance with the applicable specification when so requested by the Engineer.
- b. Manufacturer's certifications shall not relieve the Contractor of the Contractor's responsibility to provide materials in accordance with these specifications and acceptable to the Engineer. Materials supplied and/or installed that do not materially comply with these specifications shall be removed, when directed by the Engineer and replaced with materials, which do comply with these specifications, at the sole cost of the Contractor.
- c. All equipment and materials furnished and installed under this section shall be guaranteed against defects in materials and workmanship for a period of at least twelve (12) months from final acceptance by the Owner. The defective materials and/or equipment shall be repaired or replaced, at the Owner's discretion, with no additional cost to the Owner.
- d. Required Submittals (5 Copies):

Pull Boxes

**115-2.2 POLYMER CONCRETE PULL BOXES.** Manufactured high-density polymer concrete monolithic pull boxes shall be 13"W x 24L" x 18D" (Nominal), open-bottom, with bolt down cover and stainless steel hex head bolts and lifting eye(s). Box and cover shall have a "Tier 15" load rating according to ANSI/SCTE 77-2007. Cover shall be supplied from the factory with the word "ELECTRICAL" in recessed lettering.

### CONSTRUCTION METHODS

**115-3.1 UNCLASSIFIED EXCAVATION.** It is the Contractor's responsibility to locate existing utilities within the work area prior to excavation. Damage to utility lines, through lack of care in excavating, shall be repaired or replaced to the satisfaction of the Engineer without additional expense to the Owner.

The Contractor shall perform excavation for the pull boxes. The excavation shall be of sufficient size to permit the placing of the full width and length of the structure.

All excavation shall be unclassified and shall be considered incidental to the respective L-115 pay item of which it is a component part.

Boulders, logs and all other objectionable material encountered in excavation shall be removed. All rock and other hard foundation material shall be cleaned of all loose material and cut to a firm surface either level, stepped or serrated, as directed by the Engineer. All seams, crevices, disintegrated rock and thin strata shall be removed.

Prior to installation the Contractor shall provide a minimum of 4 in of sand or a material approved by the Engineer as a suitable base to receive the structure. The base material shall be compacted and graded level and at proper elevation to receive the structure in proper relation to the conduit grade or ground cover requirements, as indicated on the plans.

**115-3.2 BACKFILLING.** After a structure has been completed, the area around it shall be backfilled in horizontal layers not to exceed 6 in thickness measured after compaction. Each layer shall be deposited all around the structure to approximately the same elevation. The top of the fill shall meet the elevation shown on the plans or as directed by the Engineer.

Where required, the Engineer may direct the Contractor to add, at his own expense, sufficient water during compaction to assure a complete consolidation of the backfill. The Contractor shall be responsible for all damage or injury done to conduits, duct banks, structures, property or persons due to improper placing or compacting of backfill.

**115-3.3 RESTORATION.** After the backfill is completed, the Contractor shall dispose of all surplus material, dirt and rubbish from the site. The Contractor shall restore all disturbed areas equivalent to or better than their original condition. All sodding, grading and restoration shall be considered incidental to the respective L-115 pay item, and shall be consistent with adjacent areas.

The Contractor shall grade around structures as required to provide positive drainage away from the structure.

Areas with special surface treatment, such as roads, sidewalks, or other paved areas shall have backfill compacted to match surrounding areas, and surfaces shall be repaired using materials comparable to original materials.

After all work is completed, the Contractor shall remove all tools and other equipment, leaving the entire site free, clear and in good condition.

**115-3.4 INSPECTION.** Prior to final approval, the electrical structures shall be thoroughly inspected for conformance with the plans and this specification. Any indication of defects in materials or workmanship shall be further investigated and corrected.

#### METHOD OF MEASUREMENT

**115-4.1** Electrical junction structures (pull boxes) shall be measured by each unit completed in place and accepted. The following additional items are specifically included in each unit.

All Required Excavation

All Required Backfilling with On-Site Materials

Restoration of All Surfaces and Finished Grading, Sodding

All Required Connections

#### BASIS OF PAYMENT

**115-5.1** The accepted quantity of electrical manholes and junction structures will be paid for at the Contract unit price per each, complete and in place. This price shall be full compensation for furnishing all materials and for all preparation, excavation, backfilling and placing of the materials, furnishing and installation of

appurtenances and connections to duct banks and other structures as may be required to complete the item as shown on the plans and for all labor, equipment, tools and incidentals necessary to complete the structure.

**115-5.2** Payment shall be made at the contract unit price for Electrical Pull Boxes. This price shall be full compensation for furnishing all materials and for all preparation, assembly, and installation of these materials, and for all labor, equipment, tools, and incidentals necessary, including but not limited to, spacers, concrete, rebar, dewatering, excavating, backfill, topsoil, sodding and pavement restoration, where required, to complete this item as shown in the plans and to the satisfaction of the Engineer.

Payment will be made under:

Item L-115-1 Electrical Pull Box - Per Each

END OF SECTION TSP-L-115



## ITEM TSP-L-121 NEW LIGHTING POLES

### DESCRIPTION

**121-1.1 New Lighting Pole, Complete.** This item shall consist of furnishing and installing a new concrete lighting pole complete, including (1) LED flood light fixture, hardware and all internal pole wiring and connections.

Concrete pole shall be a 35', Type II, square concrete pole with internal raceway and internal pole ground wire. Pole shall include an internal handhole (junction box) with aluminum cover plate secured by stainless steel screws. Handhole shall be located 9'-6" above the pole base. Cable entrances shall be provided below grade, suitable for connection of the underground PVC conduit system. Two (2) internal raceways shall be provided from the underground conduit connections to the handhole to allow for an "in-and-out" feed configuration. Pole shall include 2 3/8" diameter galvanized steel tenon extending 5" above pole top and bonded to pole ground wire. Pole setting depth shall be 6'-6".

A complete luminaire assembly; Holophane Predator® Large LED, 8 module, ordering number: PLLED-8-4K-07A-AS-65-1-K-GP-F1-PCSS or approved equal, including LED lamp array for 240 volt, 60 Hz service shall be provided and installed with tenon slipfitter-knuckle mounting assembly at each pole location. Individual photocontrol and fusing shall be provided.

The luminaire shall include a die-cast aluminum housing with integral heat sink and a corrosion resistant gray paint finish. Housing shall be hinged for accessibility. The fixture shall be adjusted/aimed as detailed in the plans. The lighting fixture shall include a structured LED array, prismatic glass lens, stainless steel hardware.

Photoelectric control shall be provided and installed with each Luminaire. Photo electric control shall be compatible with the luminaire provided.

The distribution wiring shall enter the pole below grade via PVC conduit(s) connecting at the pole base and the wiring shall extend up to the pole junction box. Internal #12 THWN copper wiring shall be provided, extending from the pole junction box through the pole and bracket arm and connecting to the light fixture. The grounding conductor from the #12 THWN shall be bonded to the fixtures, bracket arms and internal pole ground. A 10 ft., 3/4" dia., copper-clad steel ground rod with bronze, bolt-type ground clamp shall be provided adjacent to the pole and bonded to the internal pole ground conductor and the distribution circuit ground conductor.

All equipment and materials furnished and installed under this section shall be guaranteed against defects in materials and workmanship as specified in the Contract between the Contractor and the Owner. The defective materials and/or equipment shall be repaired or replaced, at the Owner's discretion, with no additional cost to the Owner.

Required Submittals (5 Copies):

- Concrete Pole
- Flood Light Fixture
- Photoelectric Control
- Ground Rods and Fittings

### METHOD OF MEASUREMENT

**121-2.1** Installation of lighting poles shall be measured by each pole installed in place and accepted. The following additional items are specifically included in each pole installed and will not be measured separately for payment.

Concrete Light Pole

Tenon, Slipfitter and Knuckle Mount Hardware

LED Floodlight Assembly Including Photoelectric Controls and Individual Fusing

Internal Pole Wiring #12 THWN Copper

10 Ft., 3/4" dia. Copper-clad Ground Rod and Connector/Clamp

**BASIS OF PAYMENT**

**121-3.1** Payment will be made at the contract unit price per each pole installed. This price shall be full compensation for furnishing all materials and for all preparation, assembly, and installation of these materials, and for all labor, equipment, tools, and incidentals necessary to complete this item in accordance with the provisions and intent of the plans and specifications.

Payment will be made under:

Item L-121-1            New Lighting Pole, Complete - per each

END OF SECTION TSP-L-121

**ITEM TSP-L-131 DISTRIBUTION LOAD CENTER "A"**

DESCRIPTION

**131-1.1 Distribution Load Center "A"**. This item shall consist of the installation of a new load center as detailed in the plans. Load center shall include furnishing and installing the concrete support post, mounting hardware, panel and all equipment and fittings as detailed in the plans. All necessary permits and inspections required by governing agencies or Duke Energy shall be coordinated and scheduled by the Contractor. Any permit fees or costs associated with this requirement shall be included in this pay item. Electric service and meter installation shall be coordinated with Duke Energy. Conductors from the meter shall be connected to the main breaker in the new panel. The new panel shall feed new lighting circuits as indicated in the panel schedule included in the plans. New conduit shall be installed, extending from the panel and connecting to the underground conduit/duct (paid separately) which feeds the new lighting circuits. Conduit sweeps to connect to the direct buried duct/conduits, vertical conduits (rigid galvanized steel) and weatherproof conduit hub termination fittings at the panel shall be provided and installed as part of this item.

The new distribution panel shall be NEMA 4X, Stainless steel, 100 amp main breaker, 120/240 volt, 1 phase, 3 wire by Cutler-Hammer (PRL1A or approved equal). Compatible circuit breakers shall be provided as detailed in the plans and panel schedule.

A new side mounted transient voltage surge suppressor shall be provided and installed on the panel (Cutler-Hammer SPD-100-240Y-3-K or approved equal).

All equipment and materials furnished and installed under this section shall be guaranteed against defects in materials and workmanship as specified in the Contract between the Contractor and the Owner. The defective materials and/or equipment shall be repaired or replaced, at the Owner's discretion, with no additional cost to the Owner.

Required Submittals (5 Copies):

- Distribution Panel
- Transient Voltage Surge Suppressor
- Circuit Breakers

METHOD OF MEASUREMENT

**131-2.1** Installation of the new load center shall be measured by lump sum completed in place and accepted. The following additional items are specifically included in this item and will not be measured separately for payment.

- Coordination of new electric service and meter with Duke Energy
- New distribution panel and TVSS (see plans/schedules)
- Installation of circuit breakers
- Internal wiring and connections
- Concrete support post
- Installation of new panel (including mounting hardware and appurtenances)
- Conduit sweeps, vertical (rigid galvanized steel) conduits and termination fittings (see plans/details)

BASIS OF PAYMENT

**131-3.1** Payment will be made at the contract unit price per lump sum. This price shall be full compensation for furnishing all materials and for all preparation, assembly, and installation of these materials, and for all labor, equipment, tools, and incidentals necessary to complete this item in accordance with the provisions and intent of the plans and specifications.

Payment will be made under:

Item L-131-1      Distribution Load Center "A" - per lump sum

END OF SECTION TSP-L-131

**REMOTE PARKING LOT EXPANSION  
CHANGE ORDER #2 - OVERFLOW PARKING LOT  
ST. PETE-CLEARWATER INTERNATIONAL AIRPORT**

<b>Item No.</b>	<b>Spec. No.</b>	<b>Item Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Unit Price</b>	<b>Amount</b>
1	TS-001	MOBILIZATION	1	LS	\$25,000.00	\$25,000.00
2	102-1	MAINTENANCE OF TRAFFIC	1	LS	\$6,500.00	\$6,500.00
3	104-10-3	SEDIMENT BARRIER, SILT FENCE	3,000	LF	\$1.50	\$4,500.00
4	104-11	FLOATING TURBIDITY BARRIER	70	LF	\$12.00	\$840.00
5	104-15	SOIL TRACKING PREVENTION DEVICE	1	EA	\$4,500.00	\$4,500.00
6	110-1-1	CLEARING AND GRUBBING	1	LS	\$30,000.00	\$30,000.00
7	120-1	REGULAR EXCAVATION	4,000	CY	\$15.00	\$60,000.00
8	120-6	EMBANKMENT	2,800	CY	\$7.00	\$19,600.00
9		5" ASPHALT MILLINGS	18,000	SY	\$2.50	\$45,000.00
10	570-1-1	PERFORMANCE TURF	9,000	SY	\$2.50	\$22,500.00
11	425-1581	DITCH BOTTOM INLETS, TYPE C, <10'	1	EA	\$4,180.00	\$4,180.00
12	430-175-124	PIPE CULVERT, RCP CLASS III, 24" STORM DRAIN	25	LF	\$100.00	\$2,500.00
13	430-200-29	24" FLARED END SECTION	1	EA	\$1,310.00	\$1,310.00
14		HYDROTEX FILTER POINT LINING SYSTEM	55	SY	\$100.00	\$5,500.00
15	542-70	CONCRETE BUMP GUARD	493	EA	\$40.00	\$19,720.00
16	550-10-210	CHAIN LINK FENCE (4')	2,250	LF	\$9.00	\$20,250.00
17	550-60-213	FENCE GATE, SINGLE, SWING (4'x16')	2	EA	\$1,500.00	\$3,000.00
18		CLEARING /CLEANING ADJACENT POND AND PIPING	1	LS	\$15,000.00	\$15,000.00
<b>TOTAL</b>						<b>\$289,900.00</b>