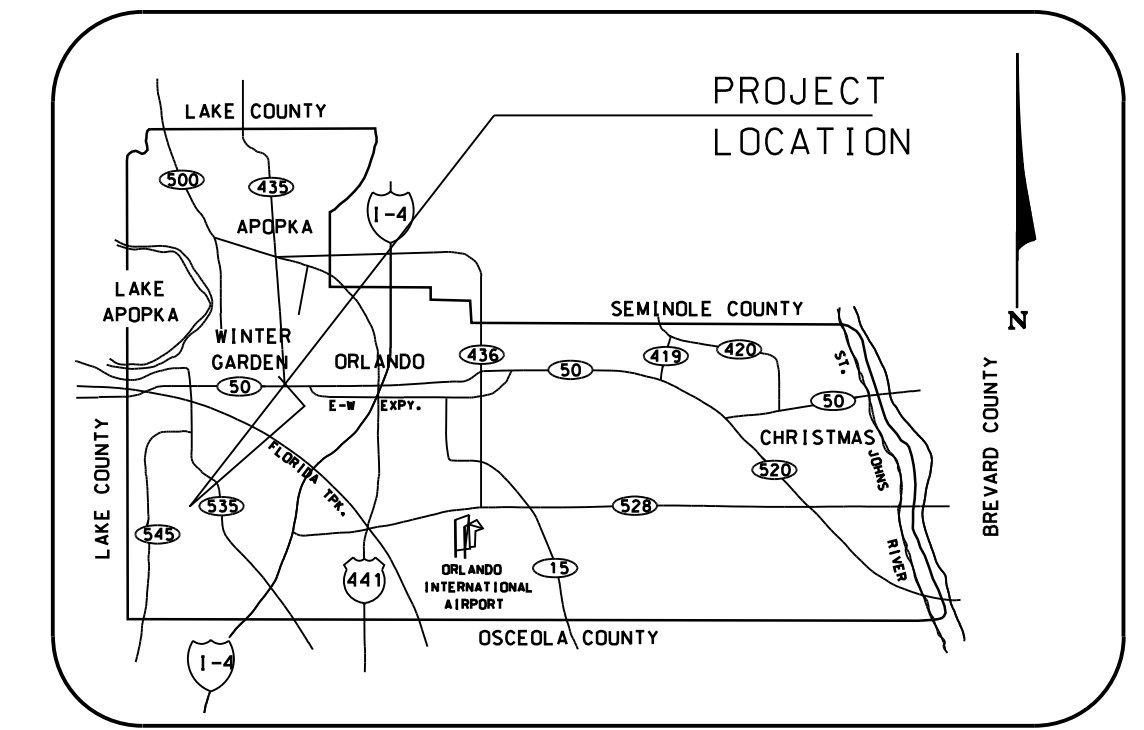


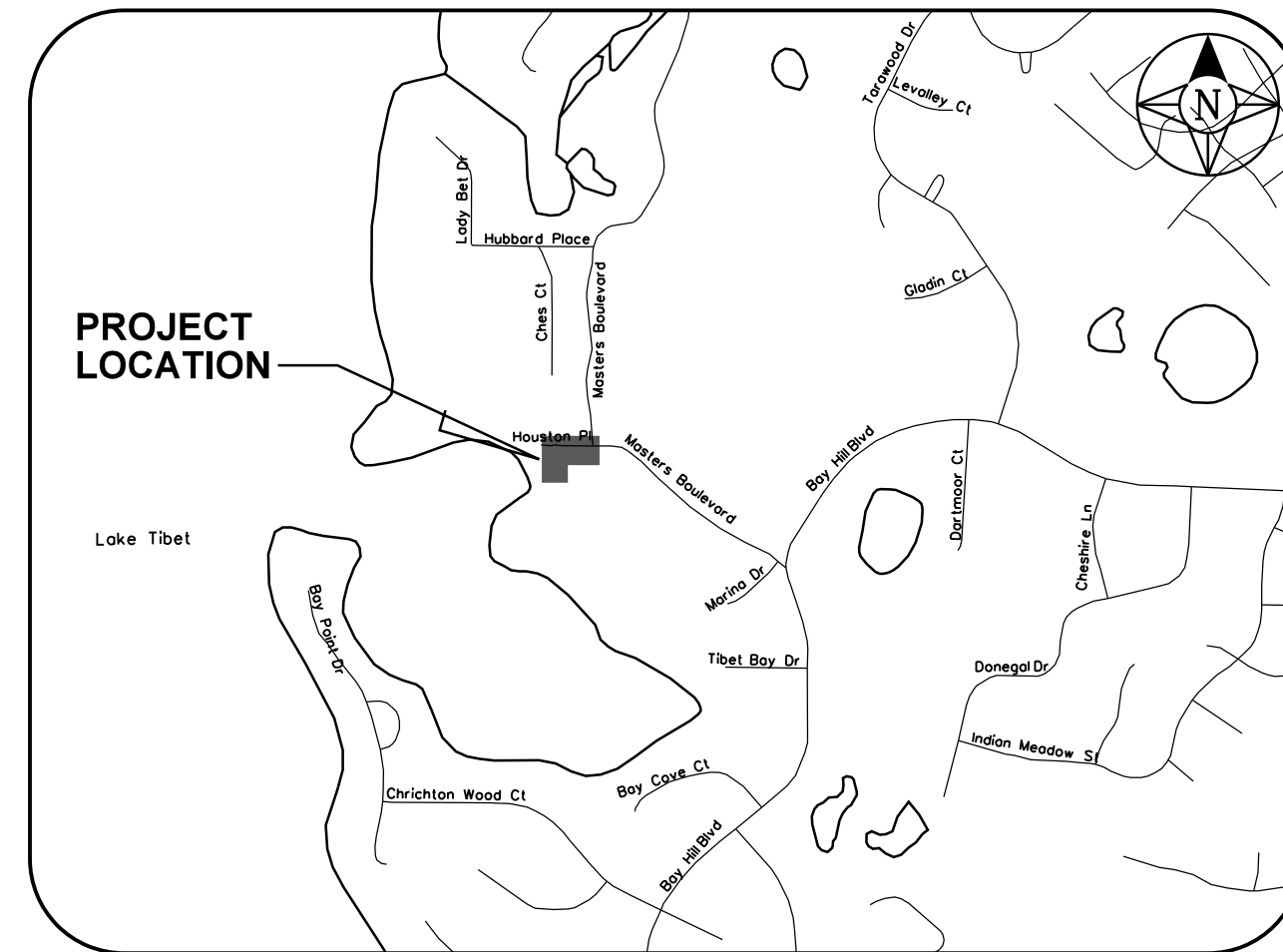


CONSTRUCTION PLANS FOR MASTERS BOULEVARD AND HOUSTON PLACE DRAINAGE IMPROVEMENTS PROJECT

DISTRICT NO. 1 ORANGE COUNTY, FLORIDA



SEC 28 TWP 23S RNG 28E
LOCATION MAP



VICINITY MAP
SCALE: 1" = 1000'

SOURCE OF BENCH MARK DATUM

ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) AS ESTABLISHED FROM THE FOLLOWING ORANGE COUNTY BENCHMARKS:

C1147037
FOUND A SQUARE CUT IN THE CONCRETE CURB ON THE EAST SIDE OF BAY HILL BOULEVARD IN FRONT OF ADDRESS # 9025
PUBLISHED ELEVATION = 111.179 FEET (NAVD88)

C1147040
FOUND 3.5" ORANGE COUNTY CONTROL DISK IN CURB INLET ON THE EAST SIDE OF BAY HILL BOULEVARD, 300 FEET ± SOUTH OF TIBET BAY DRIVE
PUBLISHED ELEVATION = 102.042 FEET (NAVD88)

INDEX OF SHEETS

- 1 Key Sheet
- 2 General & Pay Item Notes
- 3 Site Survey
- 4 Stormwater Layout Plan
- 5 Stormwater Layout Cross Sections
- 6 Miscellaneous Details
- 7 Suntime Baffle Box & Swallow Pipe High Capacity Inlet Details

Governing Specifications:
FDOT Standard Specifications for Road and Bridge Construction, 2014 Edition.

Included in plans by reference:
State of Florida, Department of Transportation
Roadway and Traffic Design Standards
(Booklet dated 2014)

Topography, benchmarks, and rights-of-way information provided by Geodata Consultants, Inc.
1349 S. International Parkway, Suite 2401
Lake Mary, FL 32746
Phone: (407) 660-2322

TYPE OF CONSTRUCTION: STORMWATER RETROFIT

PROJECT LENGTH: 500 FT. : 0.1 MI.

BOARD OF COUNTY COMMISSIONERS

TERESA JACOBS	MAYOR
S. SCOTT BOYD	DISTRICT 1
FRED BRUMMER	DISTRICT 2
PETE CLARKE	DISTRICT 3
JENNIFER THOMPSON	DISTRICT 4
TED EDWARDS	DISTRICT 5
TIFFANY MOORE RUSSELL	DISTRICT 6
MARK V. MASSARO, P.E.	PUBLIC WORKS DIRECTOR



SINGHOFEN & ASSOCIATES, INC.
Stormwater Management and Civil Engineering

11723 Orpington Street, Suite 100
Orlando, Florida 32817
Ph: (407) 679-3001
Fax: (407) 679-2691
DBPR No. 5112

Revision	Date	Approved

Designed by:	MDD/AGH
Drawn by:	BRW
Checked by:	AGH/RBG
Approved by:	RBG
Project No.:	2013-019.20

SHEET: **1**

CONSTRUCTION PLANS FOR MASTERS BOULEVARD AND HOUSTON PLACE DRAINAGE IMPROVEMENTS PROJECT

GENERAL NOTES:

- All construction shall be in accordance with and conform to the most stringent requirement of the project specifications, the latest edition of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction and supplements thereto, Orange County Road Construction Specifications, and Orange County Manual of Standards and Specifications for Wastewater and Water Main Construction.
- Engineer or Inspector as referenced in these General Notes and Drawings shall be defined as "Project Manager" in the Contract.
- The Contractor shall have all required permits in-hand, including a consumptive use permit, prior to beginning construction, and shall perform all work in accordance with the requirements of the various permits included in the Contract Documents and those obtained by the Contractor. Payment is included in the bid price for Item No. 104 "Prevention, Control, and Abatement of Erosion and Water Pollution".
- The Traffic Control Plan shall be prepared by a person certified by the Florida Department of Transportation as having satisfactorily completed an FDOT approved work zone traffic control training course, signed and sealed by an engineer, and shall be submitted to the County for approval. The Traffic Control Plan shall describe how traffic is to be controlled during each construction phase and how traffic is to be detoured during roadway closures. Details shall be provided for the access of construction vehicles and personnel and for routing trucks during earthwork operations.
- The Contractor shall be solely responsible for the control of erosion and the transportation of eroded materials offsite. The Contractor shall submit an Erosion Control Plan at the Preconstruction Conference for approval by the Engineer. The erosion control plan should be prepared by a person certified by the Florida Department of Environmental Protection as a qualified Management Inspector. The certificate shall be submitted to the County for approval. The Erosion Control Plan shall address the installation and maintenance of all temporary and permanent sediment and erosion control devices to be utilized during each phase of construction, including tree removal, clearing and grubbing, and the hauling of excavated materials and backfill. The plan shall also detail the erosion control measures to be employed at all stockpile and construction staging areas and shall define the maximum limits of all active construction zones and the maximum amount of time each segment of the project will be unprotected against erosion.
- Prior to beginning construction, the Contractor shall submit to the Engineer a set of field notes verifying the benchmark elevations and reference point ties shown on the plans, and/or a set of field notes with the location, description and elevation of all additional benchmark and reference point ties proposed to be used in constructing the project. All submittals shall be signed and sealed by a Professional Surveyor and Mapper registered in the State of Florida. Payment shall be included in the pay item for Mobilization.
- Geodata Consultants, Inc. (407) 660-2322, provided topography, benchmarks, and rights-of-way information.
- Within 21 calendar days after notice to proceed, the Contractor shall stake the rights-of-way at 100' intervals and at right-of-way breaks with stationing shown on the stakes. No invoice for payment will be processed until the right-of-way has been staked to the satisfaction of the Engineer. This stationing will remain until the end of all construction activities. Payment is included in the price bid for Item No. 101-1 "Mobilization".
- All property corners and monuments shown on the plans or found during construction shall be preserved. If a property corner or monument is in danger of being destroyed or disturbed, the Contractor shall notify the Engineer without delay and shall provide written follow up confirmation within 48 hours of notification.
- Any USCGS monument within the limits of construction shall be protected. If in danger of damage, the Contractor shall immediately notify the Project Engineer, Orange County Survey Section 407-836-7940, and both shall notify:

Sate Geodetic Advisor
3900 Commonwealth Boulevard, Suite 309
Tallahassee, Florida 32304
(850) 245-2606
- No Geotechnical information is provided for this project. It is the responsibility of the Contractor to make such examination of the site as may be necessary to determine the conditions under which the work is to be performed.
- The information shown on these drawings concerning type and location of underground and other utilities is based on information provided by the utility owners, available records, and surveyed field information. The information may not reflect actual conditions or be all inclusive regarding all utilities in the area, either in service or abandoned, or that the utilities are in the horizontal or vertical locations shown. The Contractor shall make his own determination as to the type and location of utilities as necessary to establish their locations and avoid damage. Damage to existing utilities as a result of the Contractor's work or his subcontractors shall be the sole responsibility of the Contractor to repair, pay all fines, pay all fees, and all other cost associated with restoring the utility.
- The following utility representatives should be contacted for information concerning type and location of their facilities. The list may not include all utilities in the area.

<p>POTABLE WATER Orange County Utilities 9150 Curry Ford Road Orlando, FL 32825 407-254-9700</p> <p>SANITARY SEWER Orange County Utilities 9150 Curry Ford Road Orlando, FL 32825 407-254-9700</p> <p>ELECTRIC UTILITY Duke Energy Engineering Distribution 3300 Exchange Place Lake Mary, FL 32746 407-942-9421</p> <p>Orange County Utilities Engineering Division 9150 Curry Ford Road Orlando, FL 32825 407-254-9900</p> <p>TELEPHONE / CABLE UTILITY Bright House Networks, LLC 3767 All American Boulevard Orlando, FL 32810 407-291-2500</p> <p>ComCast Communications 8130 CR 44 Leg A Leesburg, FL 34788 352-787-7875</p>	<p>Orlando Utilities Commission 3800 Gardenia Avenue Orlando, FL 32839 407-423-9018</p> <p>Orlando Utilities Commission 3800 Gardenia Avenue Orlando, FL 32839 407-423-9018</p> <p>UC Synergetic, Inc. 20525 Amberfield Dr., Suite 201 Land O' Lakes, FL 34638 813-909-1200</p> <p>Centurylink 33 N. Main Street Winter Garden, FL 34787 407-654-1636</p>
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SUNSHINESTATE ONE-CALL
1-800-432-4770
(5 days notification prior to construction)

- Prior to any scheduled interruption of utility service, the Contractor shall coordinate such interruption with the utility provider and shall provide a minimum 24-hour notice to the affected parties. In the case of a water main shut down, a minimum 24-hour notice also shall be provided to the Fire Department. The Contractor shall notify the gas utility a minimum of two (2) working days prior to excavation, as required by Chapter 77-153 of the Florida Statutes.
- The Contractor is required to coordinate closely with the utility companies when connecting to or working around existing facilities. Protect any utilities encountered. If an existing utility must be relocated due to a conflict, notify Utility Company and Engineer. All coordination and scheduling of utility crossings and relocations shall be the responsibility of the Contractor.
- The Limits of Construction are defined as roadway rights-of-way, permanent drainage and/or utility easements, and temporary construction easements.
- The Contractor shall be entirely responsible and liable for all damage or injury as a result of his operations to all other adjacent public and private property, landscaping, trees, fences, utilities, structures of any kind and appurtenances during the progress of the Work.
- All areas where sod has been removed or disturbed by Contractor's operations shall be sodded of like kind. Payment included in the unit price for Performance Turf (Sod) (Match Existing).
- Where the required minimum separation between utilities is specified, the distance shall be measured from outside of pipe to outside of pipe.
- All utilities are to be adjusted or relocated by others, unless noted otherwise on the drawings or directed by the Engineer.
- Existing traffic signs and pavement markings in conflict with construction shall be removed and replaced as directed by the Engineer. Payment included in the unit price for "Maintenance of Traffic".
- Mailboxes in conflict with construction shall be relocated in accordance with FDOT Index No. 532 and as approved by the Engineer. All costs shall be included in the unit price of the pay item for "Clearing and Grubbing".
- Existing pavement shall be saw cut as required for construction.
- All existing fences that are removed are to be replaced or relocated. All fences damaged by construction activities are to be replaced with new fencing of the same type and material. All costs shall be included in the unit price for "Clearing and Grubbing", unless noted otherwise.
- The Contractor shall comply with the Department of Labor, Safety and Health Regulations for Construction promulgated under the Occupational Safety and Health Act of 1970 (PL 91-596) and under Section 107 of the Contract Work Hours and Safety Standards Act (PL 91-54).
- No burning shall be done except upon approval by the Jurisdictional Municipality.
- The disposal of excess earthwork materials shall be the responsibility of the Contractor. Approval of disposal sites shall be obtained from Orange County prior to disposal. All excess material is the property of the Contractor.
- No trenches shall be allowed to remain open overnight.
- Disturbed areas shall be compacted (as a minimum) equal to adjacent undisturbed ground except when otherwise specified for bedding, backfill, or roadway embankment. All disturbed areas are to be sodded except for areas that are landscaped or paved.
- Properties adjacent to work zones shall be graded to drain within the limits of construction and compacted and sodded with the same type sod or existing, unless otherwise directed by the Engineer.

SUPPLEMENTAL GENERAL NOTES – STORMWATER CONSTRUCTION:

- All new or replacement concrete pipes, culverts, and storm sewers shall be Class III reinforced concrete, unless noted otherwise on the drawings or by the Engineer.
- All joints of concrete pipe culverts and storm sewers shall have a "Filter Fabric Jacket" as detailed in Standard Index 280.
- Steel grates shall be used for all ditch bottom inlets.
- All grates shall be chained and locked in accordance with FDOT Index 201. Cost of eyebolt and chain shall be included in the contract unit price for the structure.
- All manhole covers shall include the County's logo and be identified as "STORM".
- Changes of pipe inverts not exceeding plus or minus 1' will not be considered as a basis for additional compensation for the pertinent pipe bid item or for modification of precast structures.

GENERAL PAY ITEM NOTES:

- No separate payment will be made for dewatering. The costs for dewatering shall be included in the unit price for pipes.
- Payment for restoration of pavement, striping, markings, and signs shall be included in the unit price for pipes.
- No separate payment will be made for geotextile fabric or filter fabric. The costs for these items shall be included in the unit price for pipes.

STORMWATER PAY ITEM NOTES:

101-1 MOBILIZATION
The lump sum price also shall include costs for preparation of an approved Construction Progress Schedule, Erosion Control Plan, Dewatering Plan, Traffic Control Plan, Preconstruction Survey, and Preconstruction Video.

102-1 MAINTENANCE OF TRAFFIC
The lump sum price shall include all costs for preparation of an approved traffic control plan and all items required to safely maintaining traffic through and around the work zones.

104-14 POLLUTION, CONTROL, AND ABATEMENT OF EROSION AND WATER POLLUTION
The lump sum price shall include all costs for furnishing, installing, and maintaining baled hay or straw, staked silt fence, daily sweeping, inlet protection, and turbidity barrier. Also, includes costs for removal and disposal of captured sediment, removal and disposal sediment off-site upon completion of construction (including any necessary permits and fees for disposal).

110-1-1 CLEARING & GRUBBING
The lump sum price shall include all costs for removal and disposal of asphalt, curbs, sidewalks, driveways, drainage structures, pipes, trees, and other structures and obstructions necessary to be removed and for which items of the contract do not specify the removal thereof. The lump sum price shall also include all costs for the removal of existing fences and relocation or replacement with new fence, and the relocation of mailboxes. Partial payments shall be based upon the estimated lump sum price of clearing & grubbing work completed to the date of the estimate as determined by the Engineer. All partial estimates and payments shall be subject to correction in subsequent estimates and payment.

120-14 EXCAVATION, EMBANKMENT, AND GRADING
Excavation, Embankment, and Grading will be paid for at the contract lump sum price. Payment shall constitute full compensation for grading of shoulders, graded road connections, slopes, compaction, final dressing, embankment, excavation, replacement material, and all earthwork necessary to complete the project to lines and grades shown on the plans.

121-70 FLOWABLE FILL
The unit price constitutes full compensation for all labor and materials necessary for placement of flowable fill between drainage structures and existing sea wall. Final pay quantity will be plan quantity with no consideration for specification tolerances.

327-70-5 MILLING EXISTING ASPHALT PAVEMENT, 2"
The unit price constitutes full compensation for all labor and materials necessary for milling asphalt pavement to the shape and dimensions shown on the plans.

334-1-13 SUPERPAVE ASPHALT CONCRETE
The unit price constitutes full compensation for all labor and materials necessary for placing superpave asphalt pavement to the shape and dimensions shown on the plans.

425-1-901 through 425-4 INLETS, MANHOLES, JUNCTION BOX, ADJUST INLET
The unit price shall constitute full compensation for all work and materials necessary for the installation of inlets, manholes, and adjusting existing inlet. Payment includes all materials, bolt-on cover (S-4), steel plate (S-14), foundation preparation, covers, 2-piece covers, bolts, connecting existing pipes, drainage structure inverts, concrete curb transitions, Suntree Tech., Inc. Nutrient Separating Baffle Box (complete), and all appurtenances to complete the project.

430-174-112 through 430-175-236 OPTIONAL MATERIAL PIPE CULVERT AND CONCRETE PIPE CULVERT
The unit price includes payment for furnishing and installing pipe, furnishing and placing select bedding and backfill, placing regular backfill, dewatering, wrapping of pipe joints with filter fabric, concrete pipe collar, shoring & bracing, restoration of pavement, and video.

430-984-140 MITERED END SECTION
The unit price shall constitute full compensation for all work and materials necessary for the installation of mitered end sections. Payment includes all materials, foundation preparation, reinforcing steel, joint forming, placing, finishing and curing.

455-133-2: SHEET PILING STEEL, TEMPORARY
The unit price constitutes full compensation for all labor and materials necessary to furnish, install, and remove temporary steel sheet piling including any transition joint and filter material, aggregate, the existing fill, required excavation and dewatering, driving mandrel, temporary internal bracing and all incidental components. The unit price also includes removal of debris, boulders, vegetation, trash, hardpan soils, and organic muck as necessary and disposed of in accordance with the specifications.

520-1-8 CONCRETE CURB & GUTTER, SPECIAL
The unit price constitutes full compensation for all labor and materials necessary for placement of Miami Curb & Gutter to the locations shown on the plans. Also, includes saw-cutting existing curb & gutter, transitions to existing curb & gutter, joints, placing, finishing and curing. Final pay quantity will be plan quantity with no consideration for specification tolerances.

522-1 & 522-2 CONCRETE SIDEWALK
The unit price shall constitute full compensation for all work and materials necessary for the installation concrete sidewalk. Payment includes all materials, foundation preparation, reinforcing steel, joint forming (or sawing), placing, finishing and curing.

526-1-2 PAVERS, ARCHITECTURAL
The unit price shall constitute full compensation for all work and materials necessary for the removal and installation decorative pavers and new pavers. Payment includes all materials, foundation preparation, and seam (joint) materials.

530-3-4 RUBBLE RIPRAP (DITCH LINING)
The unit price shall be full compensation for all work specified in Section 530 of the FDOT Standard Specifications including foundation preparation, bedding stone, and filter fabric.

570-1-2 PERFORMANCE TURF (SOD) (MATCH EXISTING)
The unit price shall constitute full compensation for furnishing, delivering, protecting, and installing sod, including site preparation, removal of undesirable plant species, soil amendment, application of fertilizer, planting, and watering.

580-1-2 LANDSCAPE COMPLETE - LARGE PLANTS (CANARY ISLAND PALM, 12' CLEAR TRUNK)
The unit price shall constitute full compensation for furnishing, delivering, protecting, and planting trees, including site preparation, removal of undesirable plant species, soil amendment, application of fertilizer, and watering.

1050-11-423 and 1050-11-424 UTILITY PIPE, SEWER
The unit price includes all costs for removal, cleaning, and disposal off-site of existing sewer pipe and waste material and for furnishing and installing ductile iron sewer pipe at the same location, including trenching, dewatering, sheeting and/or shoring, temporary connections, bypass pumping, making tie-ins to existing manholes or mains, furnishing and placing backfill.

BIDFORM


Ref. No.	ITEM NO.	DESCRIPTION	EST. QTY.	UNIT	UNIT PRICE	CONTRACT PRICE
1	100-4	INDEMNIFICATION	1	LS		
2	101-1	MOBILIZATION (5% OF BASE BID)	1	LS		
3	102-1	MAINTENANCE OF TRAFFIC	1	LS		
4	104-14	PREVENTION, CONTROL, AND ABATEMENT OF EROSION AND WATER POLLUTION	1	LS		
5	110-1-1	CLEARING AND GRUBBING	1	LS		
6	120-14	EXCAVATION, EMBANKMENT, AND GRADING	1	LS		
7	121-70	FLOWABLE FILL	5	CY		
8	327-70-5	MILLING EXISTING ASPHALT PAVEMENT, 2" AVERAGE DEPTH	595	SY		
9	334-1-13	SUPERPAVE ASPHALT CONCRETE (SP-9.5)	595	SY		
10	425-1-901	INLET, SPECIAL, SP-HC (SWALLOW PIPE - HIGH CAPACITY)	4	EA		
11	425-2-91	MANHOLES, J-8, <10'	3	EA		
12	425-3-81	JUNCTION BOX, DRAINAGE, SPECIAL, SUNTREE SYSTEMS	1	EA		
13	425-4	INLET, ADJUST	1	EA		
14	430-174-112	PIPE CULVERT, OPT. MATERIAL, ROUND 12"	28	LF		
15	430-175-136	CONCRETE PIPE CULVERT (CLASS III) 36"	113	LF		
16	430-175-142	CONCRETE PIPE CULVERT (CLASS III) 42"	117	LF		
17	430-175-215	CONCRETE PIPE CULVERT (CLASS III) 12"x18"	38	LF		
18	430-175-230	CONCRETE PIPE CULVERT (CLASS III) 24"x38"	33	LF		
19	430-175-236	CONCRETE PIPE CULVERT (CLASS III) 29"x45"	14	LF		
20	430-984-140	MITERED END SECTION, 42"	1	EA		
21	455-133-2	SHEET PILING STEEL, TEMPORARY	1134	SF		
22	520-1-8	CONCRETE CURB & GUTTER, SPECIAL (MIAMI CURB & GUTTER)	115	LF		
23	522-1	CONCRETE SIDEWALK, 4" THICK	5	SY		
24	522-2	CONCRETE SIDEWALK, 6" THICK	41	SY		
25	526-1-2	PAVERS, ARCHITECTURAL	113	SY		
26	530-3-4	RIPRAP, RUBBLE, DITCH LINING	14.1	TN		
27	570-1-2	PERFORMANCE TURF (SOD)	528	SY		
28	580-1-2	LANDSCAPE COMPLETE - LARGE PLANTS (CANARY ISLAND PALM, 12' CLEAR TRUNK)	2	EA		
29	1050-11-423	UTILITY PIPE, FURNISH & INSTALL, DUCTILE IRON, SEWER (6")	18	LF		
30	1050-11-424	UTILITY PIPE, FURNISH & INSTALL, DUCTILE IRON, SEWER (8")	18	LF		
31	1011-1	AS-BUILT CERTIFICATION	1	LS		

TOTAL = _____

Revision	Date	Approved

Designed by: MDD/AGH
 Drawn by: MDD/HMD
 Checked by: RBG
 Approved by: RBG
 Vertical Datum: 1988

SINGHOFEN & ASSOCIATES, INC.
 STORMWATER MANAGEMENT AND CIVIL ENGINEERING



11223 Orpington Street, Suite 100
 Orlando, Florida 32817
 Ph: (407) 679-3001
 Fax: (407) 679-2691
 DBPR No. 5112

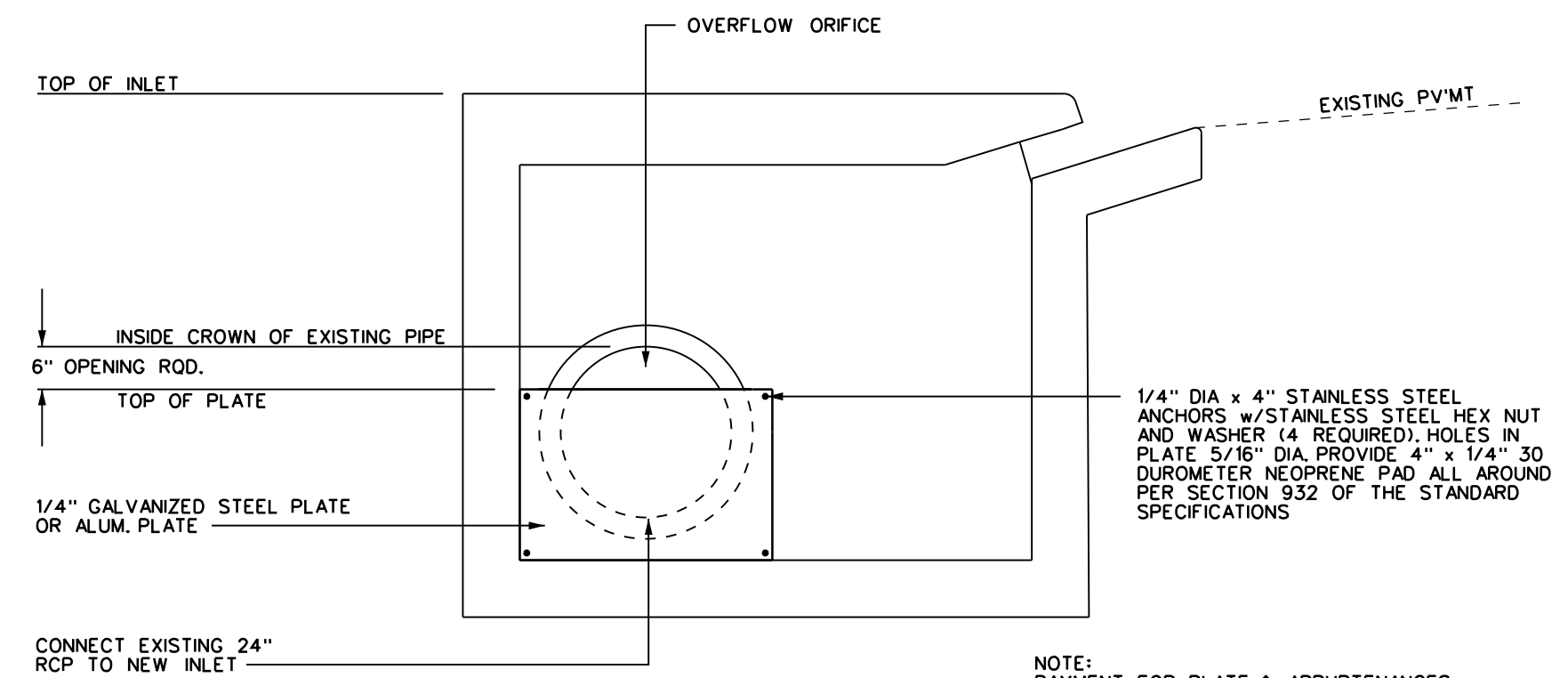
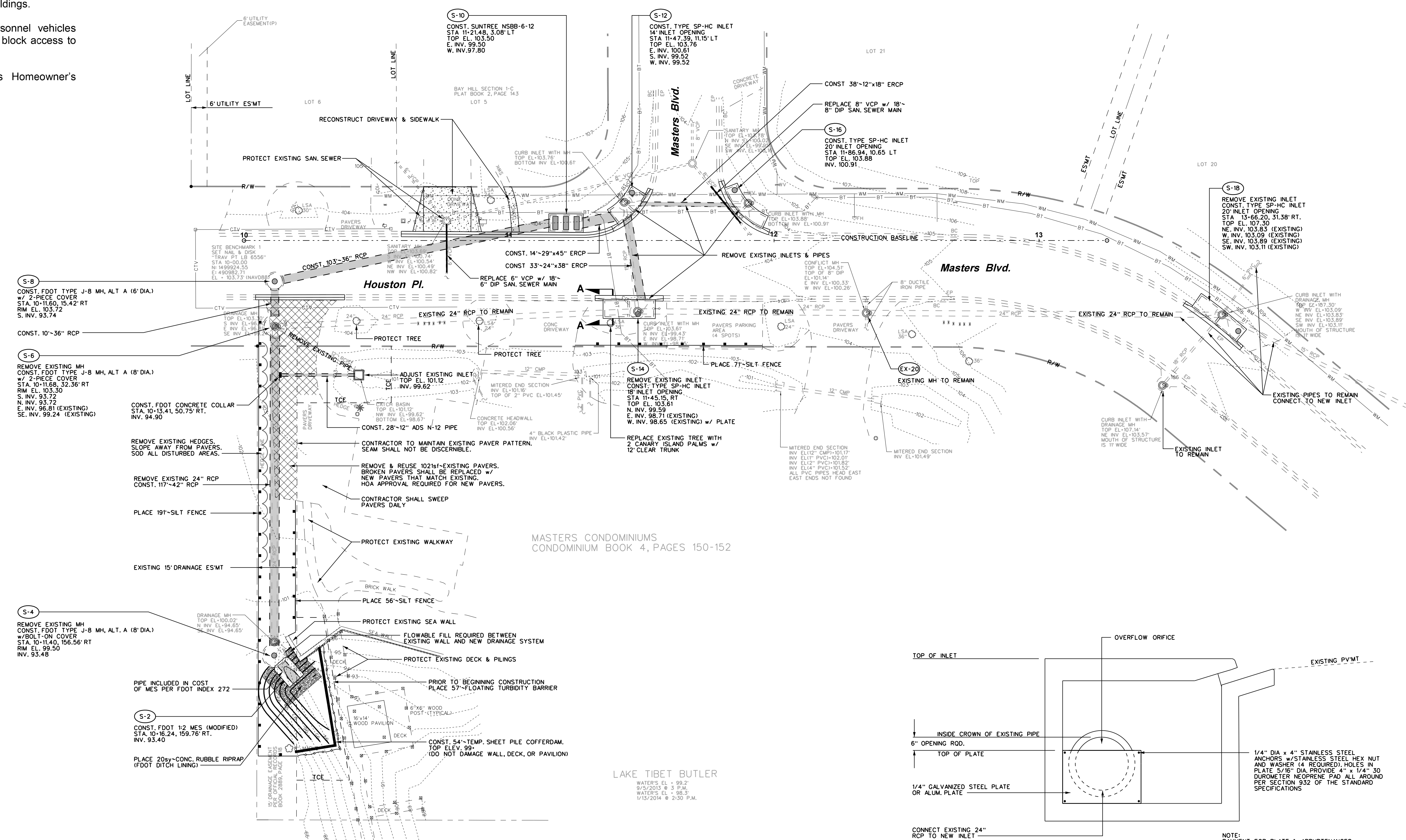
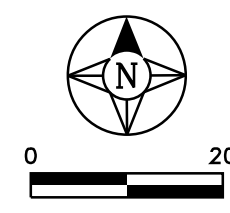
**ORANGE COUNTY
 ROADS & DRAINAGE DIVISION**

**MASTERS BOULEVARD AND
 HOUSTON PLACE DRAINAGE
 IMPROVEMENTS PROJECT**

GENERAL & PAY ITEM NOTES

NOTES:

1. The Dewatering Pump shall be located away from condominiums and at a place approved by the County. The dewatering pump's discharge hose shall discharge between the cofferdam and turbidity barrier. The discharge hose's outlet shall be located under gravel or within a structure to prevent turbidity within the lake.
2. No vibratory compactors within 25-feet of buildings.
3. Contractor shall not park equipment, personnel vehicles within the condominium's property. Do not block access to properties.
4. Contractor shall coordinate with Masters Homeowner's Association (HOA) on any road closures.



**SECTION A-A
STRUCTURE S-14 PLATE DETAIL**
SCALE: 1" = 2'

Revision	Date	Approved

Designed by: MDD/AGH
 Drawn by: MDD/HMD
 Checked by: RBG
 Approved by: RBG
 Vertical Datum: 1988

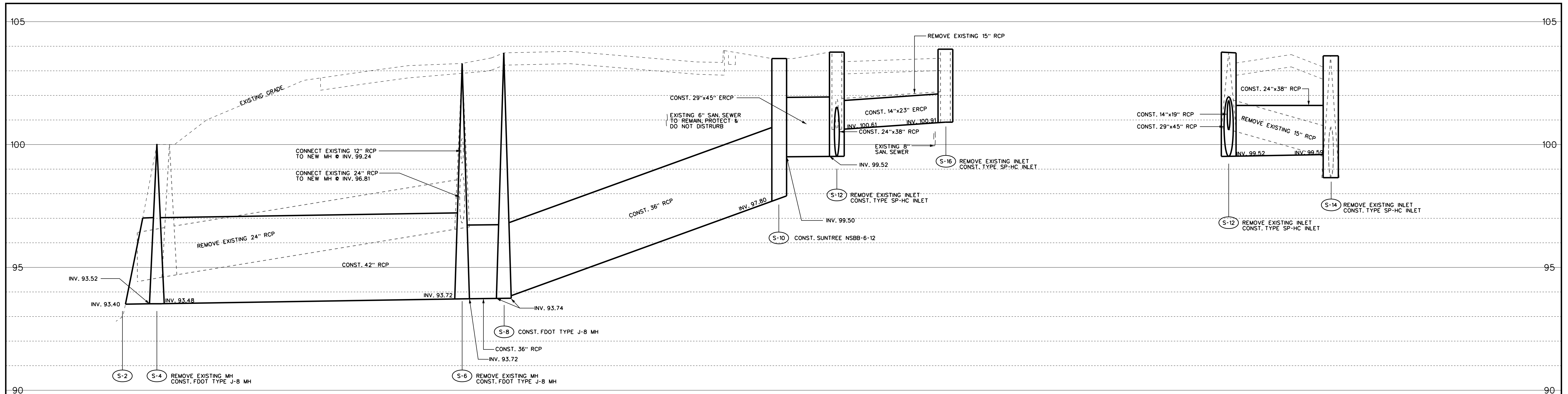
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 STORMWATER MANAGEMENT AND CIVIL ENGINEERING

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**ORANGE COUNTY
ROADS & DRAINAGE DIVISION**

**MASTERS BOULEVARD AND
HOUSTON PLACE DRAINAGE
IMPROVEMENTS PROJECT**

STORMWATER LAYOUT PLAN

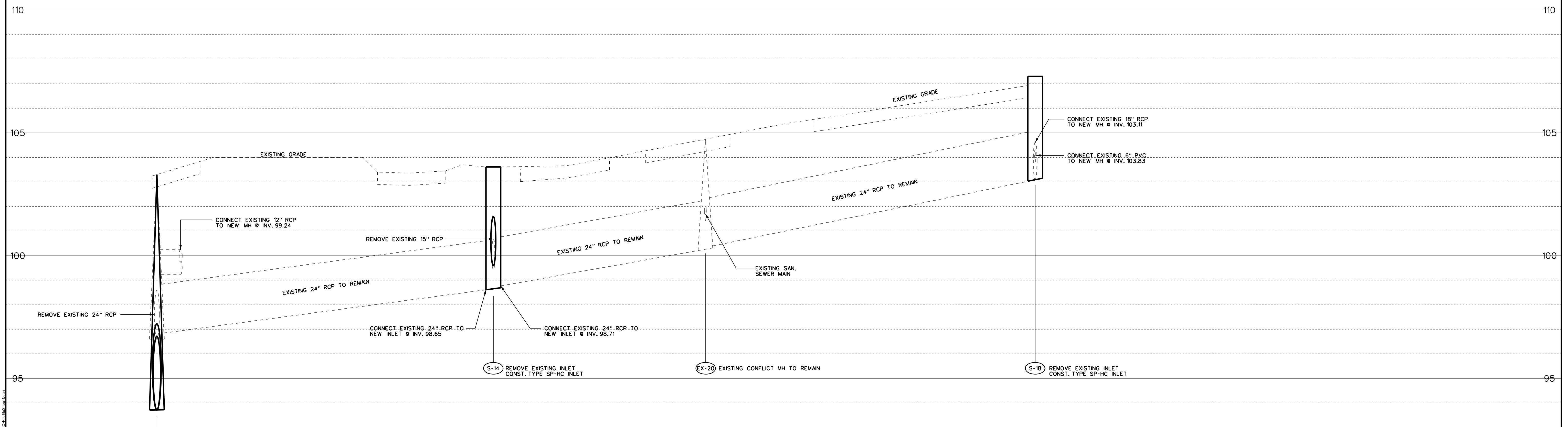


CROSS SECTION OF S-2, S-4, S-6, S-8, S-10, S-12, & S-16

HSCALE: 1" = 20'
VSCALE: 1" = 2'

CROSS SECTION OF S-12 & S-14

HSCALE: 1" = 20'
VSCALE: 1" = 2'



CROSS SECTION OF S-6, S-14, & S-18

HSCALE: 1" = 20'
VSCALE: 1" = 2'

Revision	Date	Approved

Designed by: MDD/AGH
 Drawn by: MDD/HMD
 Checked by: RBG
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SINGHOFEN & ASSOCIATES, INC.
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**ORANGE COUNTY
 ROADS & DRAINAGE DIVISION**

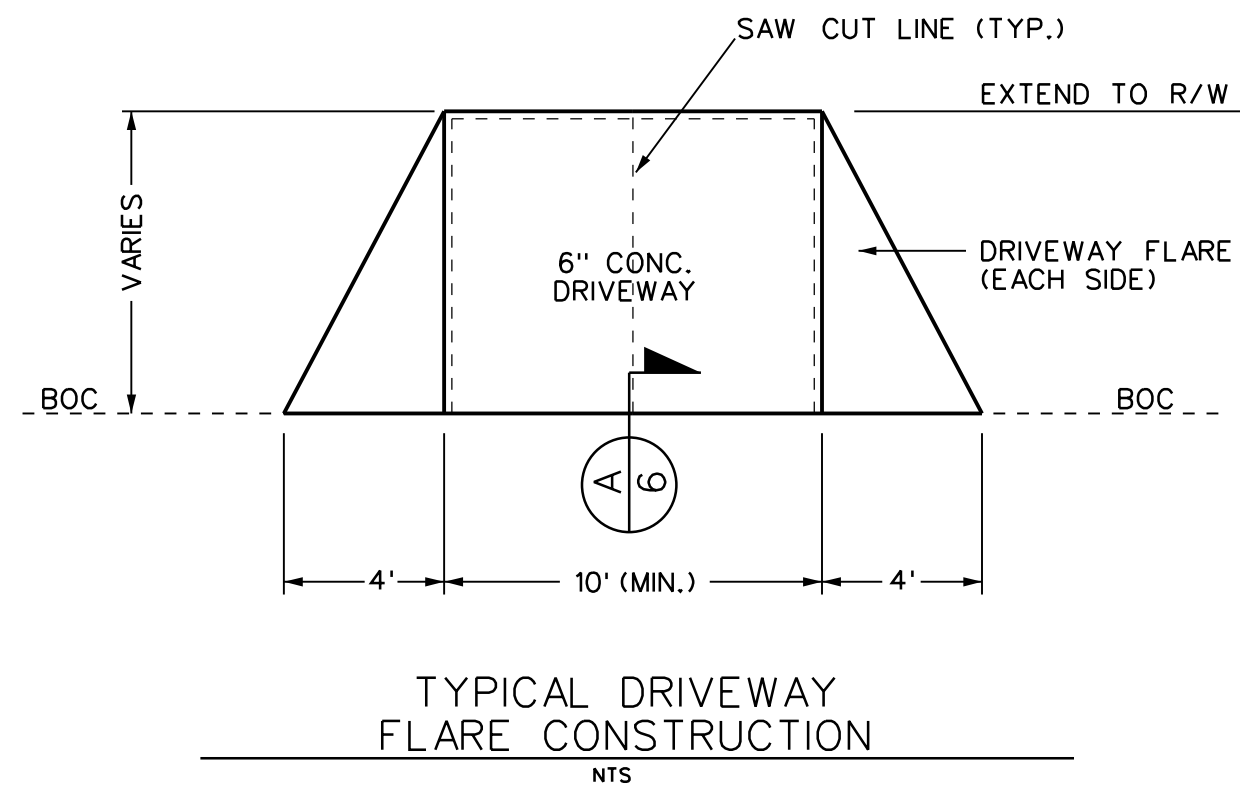
**MASTERS BOULEVARD AND
 HOUSTON PLACE DRAINAGE
 IMPROVEMENTS PROJECT**

**STORMWATER LAYOUT
 CROSS SECTIONS**

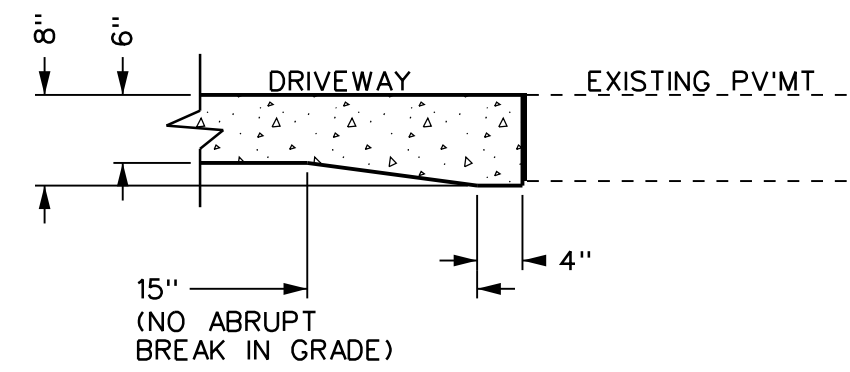
SHEET
5
 Project No.
 2013-019.20

DRIVEWAY CONSTRUCTION NOTES:

1. 12" COMPACTED SUBGRADE INCLUDED IN PAY ITEM FOR "CONCRETE DRIVEWAY".
2. 12" COMPACTED SUBGRADE, MINIMUM DENSITY 98% OF T-180.
3. DRIVEWAY SHALL BE CLASS I CONCRETE, MINIMUM 3000 PSI.
4. COMPLY WITH ORANGE COUNTY & FDOT INDEX 515 "URBAN FLARED TURNOUTS".
5. REPLACEMENT DRIVEWAYS TO MATCH EXISTING LOCATION.
6. TOTAL DRIVEWAY AREA REPLACED TO BE INCLUDED IN PAY ITEM 522-2.



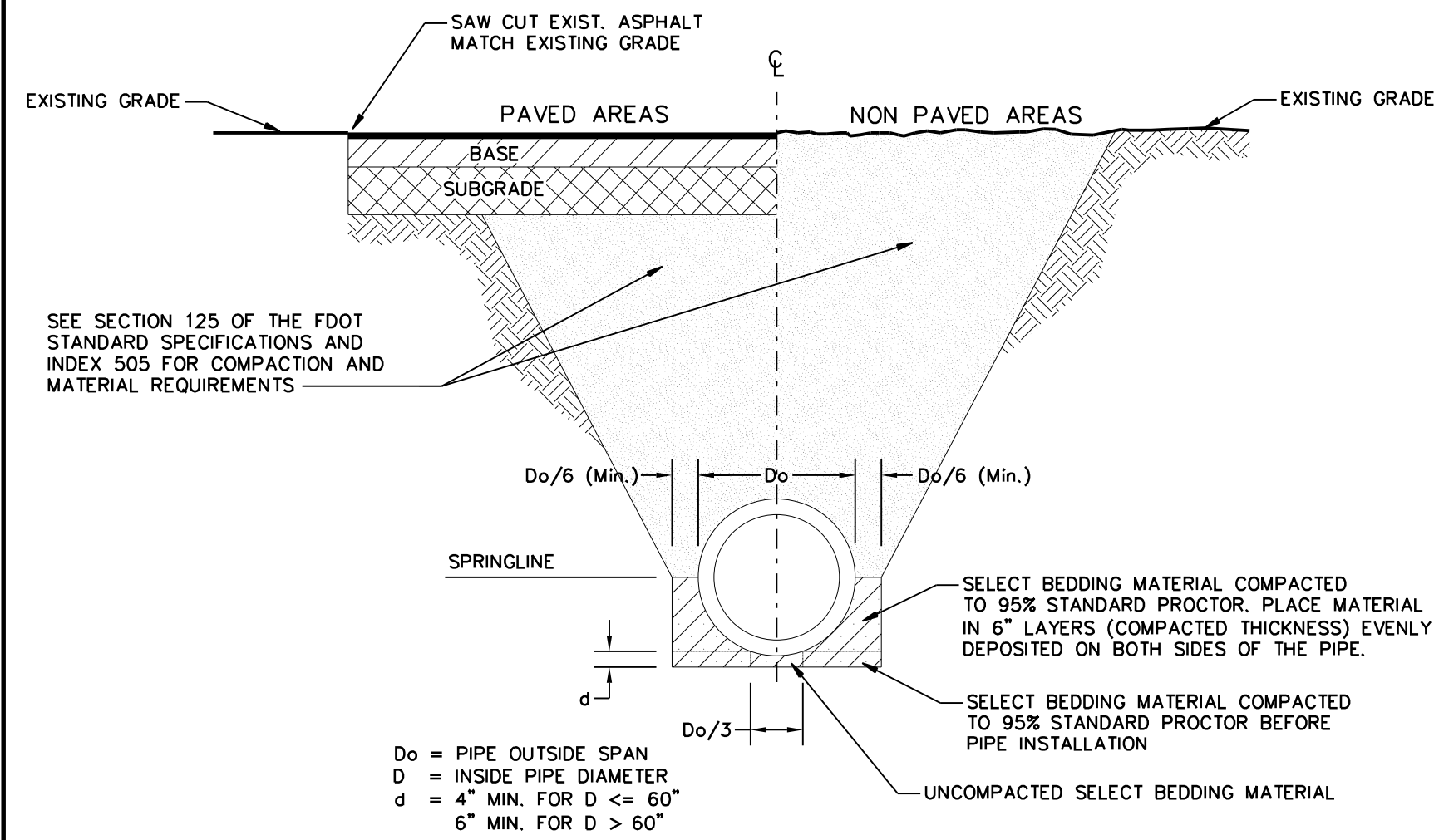
TYPICAL DRIVEWAY FLARE CONSTRUCTION
NTS



TYPICAL DRIVEWAY APRON - PAVEMENT
NTS

TYPICAL DRIVEWAY FLARE DETAIL

NOT TO SCALE

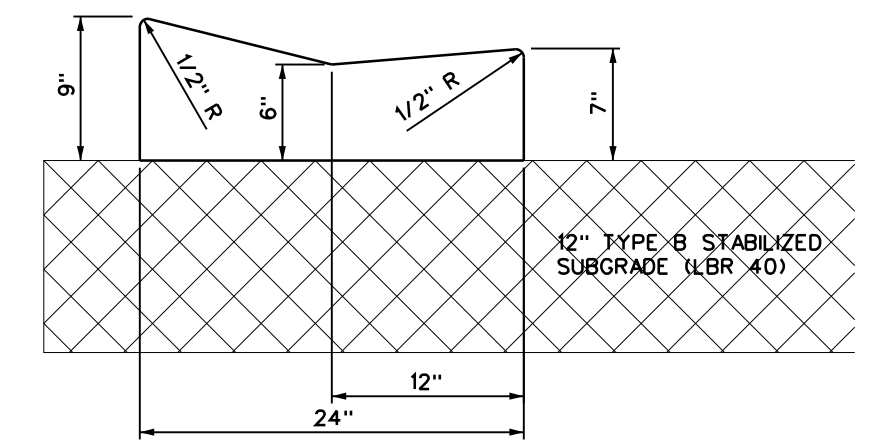


NOTES:

1. BACKFILL ABOVE THE SPRINGLINE TO BE PLACED IN LIFTS THIN ENOUGH TO ALLOW COMPACTION TO BE ACHIEVED. LIFTS IN EXCESS OF TWELVE INCHES, MEASURED LOOSE, SHALL NOT BE ALLOWED.
2. PIPES ARE TO BE INSTALLED IN DRY TRENCHES.
3. IF TRENCH IS OVEREXCAVATED, BACKFILL AND RECOMPACT TO MATCH SURROUNDING DENSITY THEN PLACE SELECT BEDDING MATERIAL AS SHOWN ABOVE.
4. HAND DIG FOR BELL JOINTS. BEARING FROM JOINT TO JOINT WILL NOT BE ALLOWED.
5. BEFORE PLACING SOD IN GRASSED AREAS, PROVIDE A THREE-INCH MINIMUM LAYER OF TOPSOIL THAT IS SUFFICIENTLY LOOSE TO PROMOTE ROOT GROWTH.
6. SELECT BEDDING MATERIAL SHALL MEET THE AASHTO CLASSIFICATION OF A-1, A-3 OR A-2-4. IF PLACED BELOW THE WATER LEVEL, A-2-4 MATERIAL MUST BE NONPLASTIC AND CONTAIN LESS THAN 15% PASSING THE NO. 200 SIEVE.
7. UNDER WET TRENCH CONDITIONS COURSE AGGREGATE MAY BE USED BELOW THE ELEVATION AT WHICH MECHANICAL TAMPERS WOULD BE EFFECTIVE. COURSE AGGREGATE MUST MEET SIZE REQUIREMENTS AS SPECIFIED IN 125-8.3.4 AND BE FULLY WRAPPED WITH A LAYER OF TYPE D-4 FILTER FABRIC, AS SPECIFIED ON FDOT INDEX 199. DO NOT PLACE COARSE AGGREGATE WITHIN 4 FEET OF THE ENDS OF THE TRENCH. USE NORMALLY ACCEPTED BACKFILL MATERIAL AT THE ENDS.

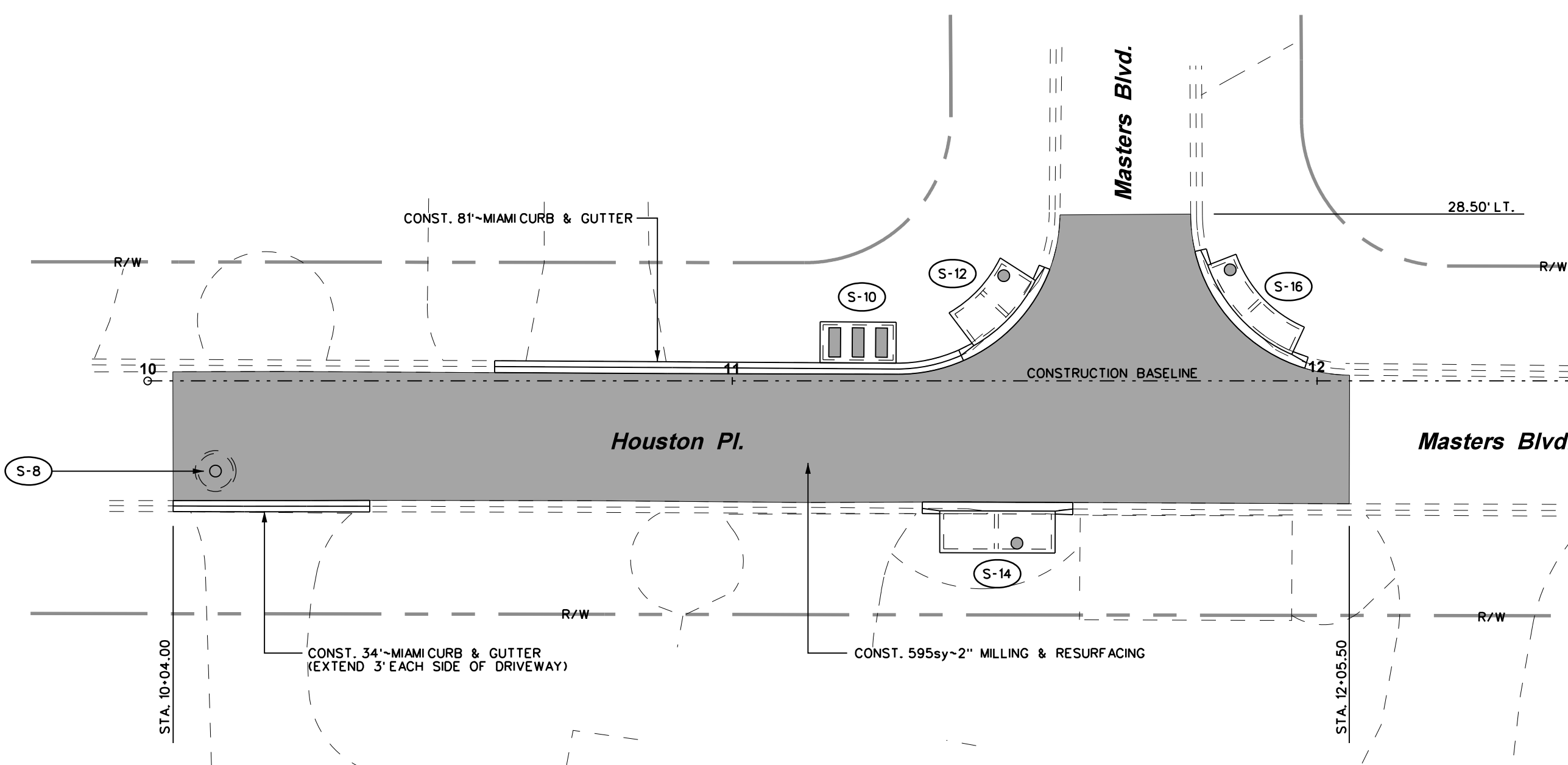
TYPICAL RCP INSTALLATION & TRENCH BACKFILL DETAIL

NOT TO SCALE



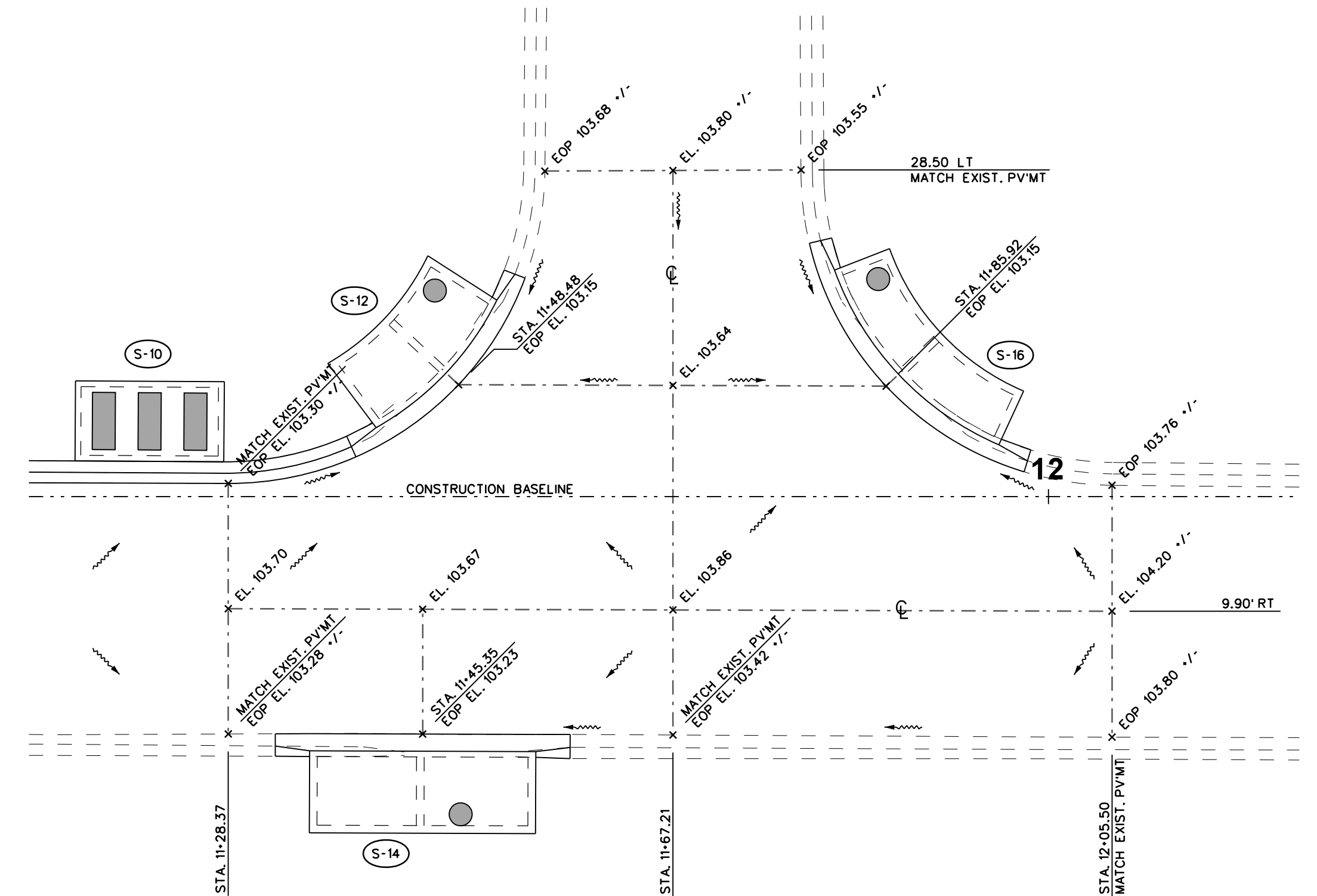
24" MIAMI CURB

NOT TO SCALE



LIMITS OF MILLING & RESURFACING

1" = 20'



NOTE:


THE PAVEMENT ACROSS THE INTERSECTION HAS BEEN RAISED TO HINDER SURFACE FLOWS. THE CONTRACTOR SHALL TRANSITION FINISHED PAVEMENT TO MATCH EXISTING PAVEMENT. TRANSITIONS SHALL BE SMOOTH, UNIFORM, AND WITH NO DIPS. NO PONDING WITHIN PAVEMENT IS ALLOWED. DIRECT SURFACE WATER FLOWS TO PROPOSED INLETS.

INTERSECTION GRADING DETAIL

1" = 10'

Revision	Date	Approved

Designed by: MDD/AGH
 Drawn by: MDD/HMD
 Checked by: RBG
 Approved by: RBG
 Vertical Datum: 1988

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**ORANGE COUNTY
ROADS & DRAINAGE DIVISION**

**MASTERS BOULEVARD AND
HOUSTON PLACE DRAINAGE
IMPROVEMENTS PROJECT**

MISCELLANEOUS DETAILS

SHEET

6

Project No.
2013-019.20

