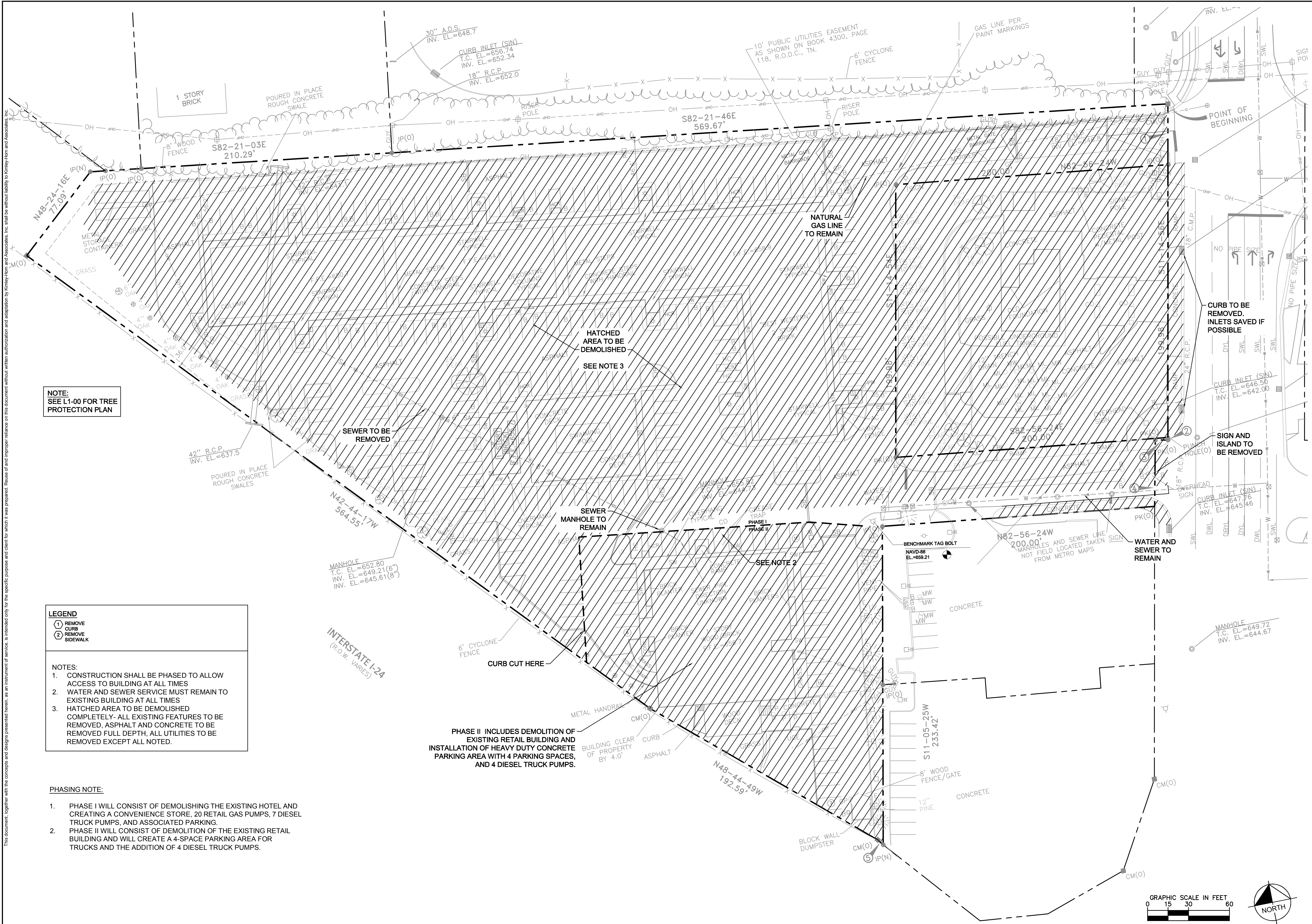


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NOTE:
SEE L1-00 FOR TREE PROTECTION PLAN

LEGEND

- ① REMOVE CURB
- ② REMOVE SIDEWALK

NOTES:

- CONSTRUCTION SHALL BE PHASED TO ALLOW ACCESS TO BUILDING AT ALL TIMES
- WATER AND SEWER SERVICE MUST REMAIN TO EXISTING BUILDING AT ALL TIMES
- HATCHED AREA TO BE DEMOLISHED COMPLETELY- ALL EXISTING FEATURES TO BE REMOVED FULL DEPTH, ALL UTILITIES TO BE REMOVED EXCEPT ALL NOTED.

PHASING NOTE:

- PHASE I WILL CONSIST OF DEMOLISHING THE EXISTING HOTEL AND CREATING A CONVENIENCE STORE, 20 RETAIL GAS PUMPS, 7 DIESEL TRUCK PUMPS, AND ASSOCIATED PARKING.
- PHASE II WILL CONSIST OF DEMOLITION OF THE EXISTING RETAIL BUILDING AND WILL CREATE A 4-SPACE PARKING AREA FOR TRUCKS AND THE ADDITION OF 4 DIESEL TRUCK PUMPS.

PHASE II INCLUDES DEMOLITION OF EXISTING RETAIL BUILDING AND INSTALLATION OF HEAVY DUTY CONCRETE PARKING AREA WITH 4 PARKING SPACES, AND 4 DIESEL TRUCK PUMPS.

HATCHED AREA TO BE DEMOLISHED
SEE NOTE 3

NATURAL GAS LINE TO REMAIN

SEWER MANHOLE TO REMAIN

SEE NOTE 2

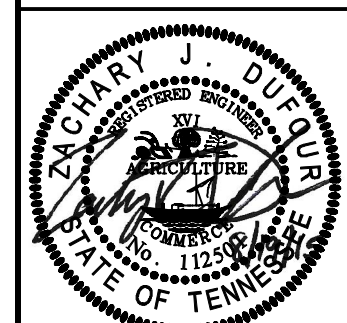
CURB TO BE REMOVED. INLETS SAVED IF POSSIBLE

SIGN AND ISLAND TO BE REMOVED

WATER AND SEWER TO REMAIN

NO.	REVISIONS	DATE	BY

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PHONE: 615-564-2701
WWW.KIMLEY-HORN.COM



SCALE: 1" = 30'
DESIGNED BY: JYB
DRAWN BY: JYB
CHECKED BY: ZJD

EXISTING CONDITIONS & DEMO PLAN

Thorntons
P1407- OLD HICKORY BLVD
ANTIOCH, TN

DATE: 7/30/2015
PROJECT NO.: 148966010
SHEET NUMBER

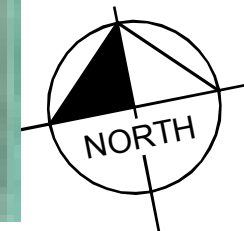
C1-00

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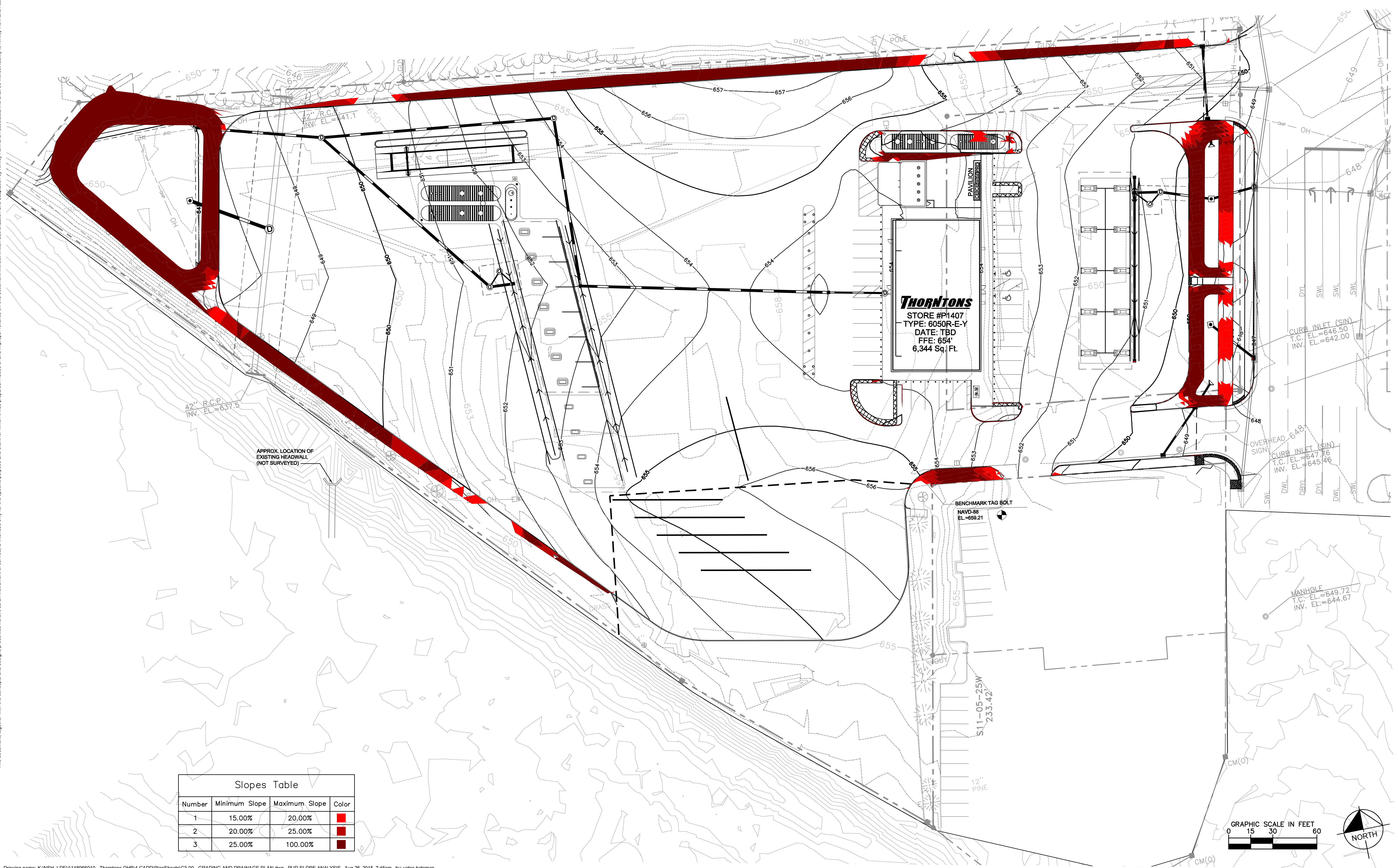
MAP UNIT LEGEND

AmB - ARMOUR SILT LOAM (8 TO 12 PERCENT SLOPES)
StC - STIVERSVILLE LOAM (8 TO 12 PERCENT SLOPES)
StD - STIVERSVILLE LOAM (12 TO 25 PERCENT SLOPES)
TbC - TALBOTT-ROCK OUTCROP COMPLEX (8 TO 10 PERCENT SLOPES)
TrC - TALBOTT-ROCK OUTCROP COMPLEX (8 TO 15 PERCENT SLOPES)

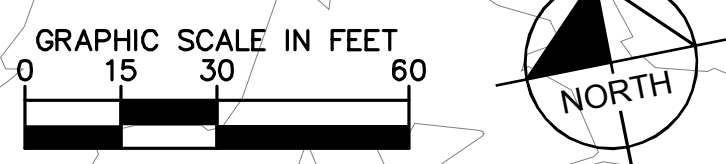


 <small>KIMLEY-HORN AND ASSOCIATES, INC. 209 10TH AVENUE SOUTH, NASHVILLE, TN 37203 PHONE: 615-564-2701 WWW.KIMLEY-HORN.COM</small>		SOILS MAP	Thorntons P1407- OLD HICKORY BLVD ANTIPOCH, TN	SCALE: NTS DESIGNED BY: JYB DRAWN BY: JYB CHECKED BY: ZJD
				DATE 7/30/2015
				PROJECT NO. 148966010
				SHEET NUMBER C1-10
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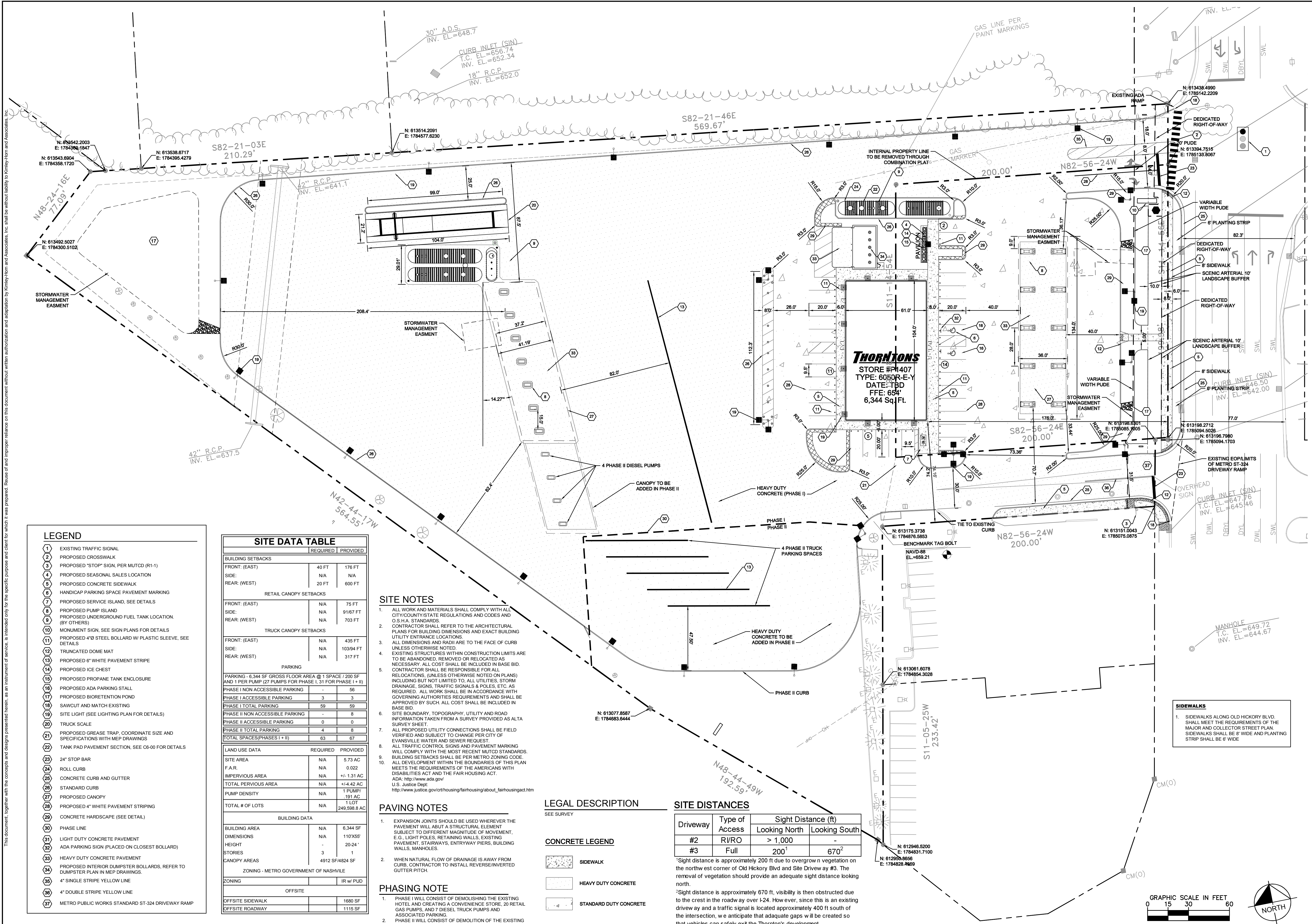


Number	Minimum Slope	Maximum Slope	Color
1	15.00%	20.00%	Red
2	20.00%	25.00%	Dark Red
3	25.00%	100.00%	Dark Red



<p>P1407- OLD HICKORY BLVD ANTIOCH, TN</p>	<p>SLOPE ANALYSIS</p>	<p>SCALE: 1" = 30'</p> <p>DESIGNED BY: JYB DRAWN BY: JYB CHECKED BY: ZJD</p>	
<p>Kimley-Horn KIMLEY-HORN AND ASSOCIATES, INC. 209 10TH AVENUE SOUTH, NASHVILLE, TN 37203 PHONE: 615-564-2701 WWW.KIMLEY-HORN.COM</p>		<p>NO. _____</p> <p>REVISIONS _____</p> <p>DATE _____</p> <p>BY _____</p>	

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LEGEND

- 1 EXISTING TRAFFIC SIGNAL
- 2 PROPOSED CROSSWALK
- 3 PROPOSED "STOP" SIGN, PER MUTCD (R1-1)
- 4 PROPOSED SEASONAL SALES LOCATION
- 5 PROPOSED CONCRETE SIDEWALK
- 6 HANDICAP PARKING SPACE PAVEMENT MARKING
- 7 PROPOSED SERVICE ISLAND, SEE DETAILS
- 8 PROPOSED PUMP ISLAND
- 9 PROPOSED UNDERGROUND FUEL TANK LOCATION (BY OTHERS)
- 10 MONUMENT SIGN, SEE SIGN PLANS FOR DETAILS
- 11 PROPOSED 4"Ø STEEL BOLLARD W/ PLASTIC SLEEVE, SEE DETAILS
- 12 TRUNCATED DOME MAT
- 13 PROPOSED 6" WHITE PAVEMENT STRIPE
- 14 PROPOSED ICE CHEST
- 15 PROPOSED PROPANE TANK ENCLOSURE
- 16 PROPOSED ADA PARKING STALL
- 17 PROPOSED BIORETENTION POND
- 18 SAWCUT AND MATCH EXISTING
- 19 SITE LIGHT (SEE LIGHTING PLAN FOR DETAILS)
- 20 TRUCK SCALE
- 21 PROPOSED GREASE TRAP, COORDINATE SIZE AND SPECIFICATIONS WITH MEP DRAWINGS
- 22 TANK PAD PAVEMENT SECTION, SEE C6-00 FOR DETAILS
- 23 24" STOP BAR
- 24 ROLL CURB
- 25 CONCRETE CURB AND GUTTER
- 26 STANDARD CURB
- 27 PROPOSED CANOPY
- 28 PROPOSED 4" WHITE PAVEMENT STRIPING
- 29 CONCRETE HARDSCAPE (SEE DETAIL)
- 30 PHASE LINE
- 31 LIGHT DUTY CONCRETE PAVEMENT
- 32 ADA PARKING SIGN (PLACED ON CLOSEST BOLLARD)
- 33 HEAVY DUTY CONCRETE PAVEMENT
- 34 PROPOSED INTERIOR DUMPSTER BOLLARDS, REFER TO DUMPSTER PLAN IN MEP DRAWINGS
- 35 4" SINGLE STRIPE YELLOW LINE
- 36 4" DOUBLE STRIPE YELLOW LINE
- 37 METRO PUBLIC WORKS STANDARD ST-324 DRIVEWAY RAMP

SITE DATA TABLE

	REQUIRED	PROVIDED
BUILDING SETBACKS		
FRONT: (EAST)	40 FT	176 FT
SIDE:	N/A	N/A
REAR: (WEST)	20 FT	600 FT
RETAIL CANOPY SETBACKS		
FRONT: (EAST)	N/A	75 FT
SIDE:	N/A	91/67 FT
REAR: (WEST)	N/A	703 FT
TRUCK CANOPY SETBACKS		
FRONT: (EAST)	N/A	435 FT
SIDE:	N/A	103/94 FT
REAR: (WEST)	N/A	317 FT
PARKING		
PARKING - 6,344 SF GROSS FLOOR AREA @ 1 SPACE / 200 SF AND 1 PER PUMP (27 PUMPS FOR PHASE I, 31 FOR PHASE I + II)		
PHASE I NON ACCESSIBLE PARKING	-	56
PHASE I ACCESSIBLE PARKING	3	3
PHASE I TOTAL PARKING	59	59
PHASE II NON ACCESSIBLE PARKING	-	8
PHASE II ACCESSIBLE PARKING	0	0
PHASE II TOTAL PARKING	4	8
TOTAL SPACES (PHASES I + II)	63	67
LAND USE DATA		
SITE AREA	N/A	5.73 AC
F.A.R.	N/A	0.22
IMPERVIOUS AREA	N/A	+/- 1.31 AC
TOTAL PERVIOUS AREA	N/A	+/- 4.42 AC
PUMP DENSITY	N/A	1 PUMP / 191 AC
TOTAL # OF LOTS	N/A	1 LOT / 249,598.8 AC
BUILDING DATA		
BUILDING AREA	N/A	6,344 SF
DIMENSIONS	N/A	110'X55'
HEIGHT	N/A	20-24'
STORIES	3	1
CANOPY AREAS	4912 SF/4824 SF	
ZONING - METRO GOVERNMENT OF NASHVILLE		
ZONING		IR w/ PUD
OFFSITE		
OFFSITE SIDEWALK		1690 SF
OFFSITE ROADWAY		1115 SF

SITE NOTES

- ALL WORK AND MATERIALS SHALL COMPLY WITH ALL CITY/COUNTY/STATE REGULATIONS AND CODES AND O.S.H.A. STANDARDS. CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR BUILDING DIMENSIONS AND EXACT BUILDING UTILITY ENTRANCE LOCATIONS.
- ALL DIMENSIONS AND RADII ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
- EXISTING STRUCTURES WITHIN CONSTRUCTION LIMITS ARE TO BE ABANDONED, REMOVED OR RELOCATED AS NECESSARY. ALL COST SHALL BE INCLUDED IN BASE BID. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RELOCATIONS, (UNLESS OTHERWISE NOTED ON PLANS) INCLUDING BUT NOT LIMITED TO, ALL UTILITIES, STORM DRAINAGE, SIGNS, TRAFFIC SIGNALS & POLES, ETC. AS REQUIRED. ALL WORK SHALL BE IN ACCORDANCE WITH GOVERNING AUTHORITIES REQUIREMENTS AND SHALL BE APPROVED BY SUCH. ALL COST SHALL BE INCLUDED IN BASE BID.
- SITE BOUNDARY, TOPOGRAPHY, UTILITY AND ROAD INFORMATION TAKEN FROM A SURVEY PROVIDED AS ALTA SURVEY SHEET.
- ALL PROPOSED UTILITY CONNECTIONS SHALL BE FIELD VERIFIED AND SUBJECT TO CHANGE PER CITY OF EVANSVILLE WATER AND SEWER REQUEST.
- ALL TRAFFIC CONTROL SIGNS AND PAVEMENT MARKING WILL COMPLY WITH THE MOST RECENT MUTCD STANDARDS.
- BUILDING SETBACKS SHALL BE PER METRO ZONING CODE. ALL DEVELOPMENT WITHIN THE BOUNDARIES OF THIS PLAN MEETS THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT AND THE FAIR HOUSING ACT. ADA: <http://www.ada.gov/> U.S. Justice Dept: http://www.justice.gov/crt/housing/fairhousing/about_fairhousingact.htm

PAVING NOTES

- EXPANSION JOINTS SHOULD BE USED WHEREVER THE PAVEMENT WILL ABUT A STRUCTURAL ELEMENT SUBJECT TO DIFFERENT MAGNITUDE OF MOVEMENT, E.G., LIGHT POLES, RETAINING WALLS, EXISTING PAVEMENT, STAIRWAYS, ENTRYWAY PIERS, BUILDING WALLS, MANHOLES.
- WHEN NATURAL FLOW OF DRAINAGE IS AWAY FROM CURB, CONTRACTOR TO INSTALL REVERSE/INVERTED GUTTER PITCH.

PHASING NOTE

- PHASE I WILL CONSIST OF DEMOLISHING THE EXISTING HOTEL AND CREATING A CONVENIENCE STORE, 20 RETAIL GAS PUMPS, AND 7 DIESEL TRUCK PUMPS AND ASSOCIATED PARKING.
- PHASE II WILL CONSIST OF DEMOLITION OF THE EXISTING RETAIL BUILDING AND WILL CREATE A 4 SPACE PARKING AREA FOR TRUCKS AND THE ADDITION OF 4 DIESEL TRUCK PUMPS.

LEGAL DESCRIPTION

SEE SURVEY

CONCRETE LEGEND

- SIDEWALK
- HEAVY DUTY CONCRETE
- STANDARD DUTY CONCRETE

SITE DISTANCES

Driveway	Type of Access	Sight Distance (ft)	
		Looking North	Looking South
#2	R/VRO	> 1,000	-
#3	Full	200'	670'

1 Sight distance is approximately 200 ft due to overgrown vegetation on the north west corner of Old Hickory Blvd and Site Driveway #3. The removal of vegetation should provide an adequate sight distance looking north.

2 Sight distance is approximately 670 ft, visibility is then obstructed due to the crest in the roadway over I-24. However, since this is an existing driveway and a traffic signal is located approximately 400 ft south of the intersection, we anticipate that adequate gaps will be created so that vehicles can safely exit the Thornton's development.

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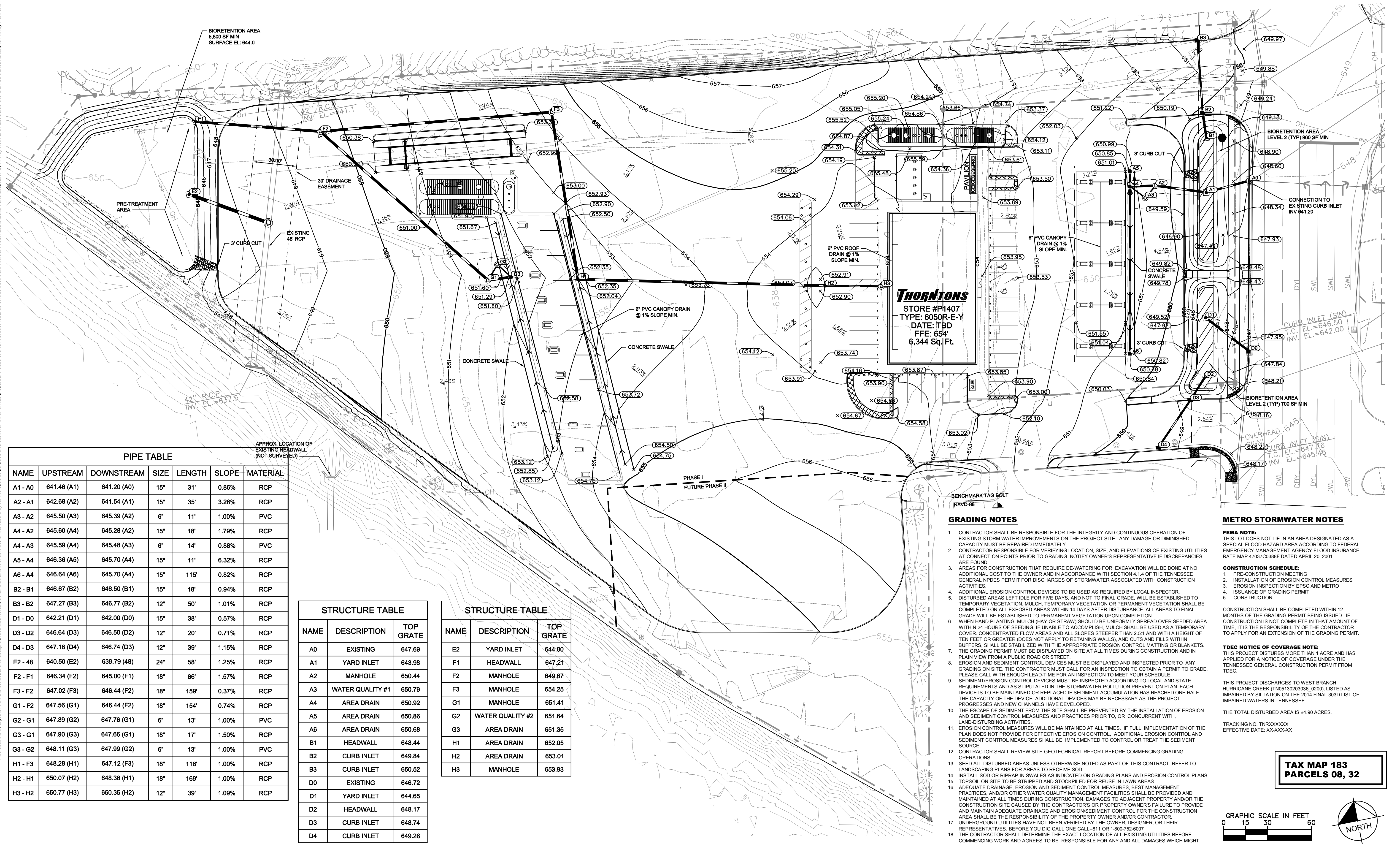
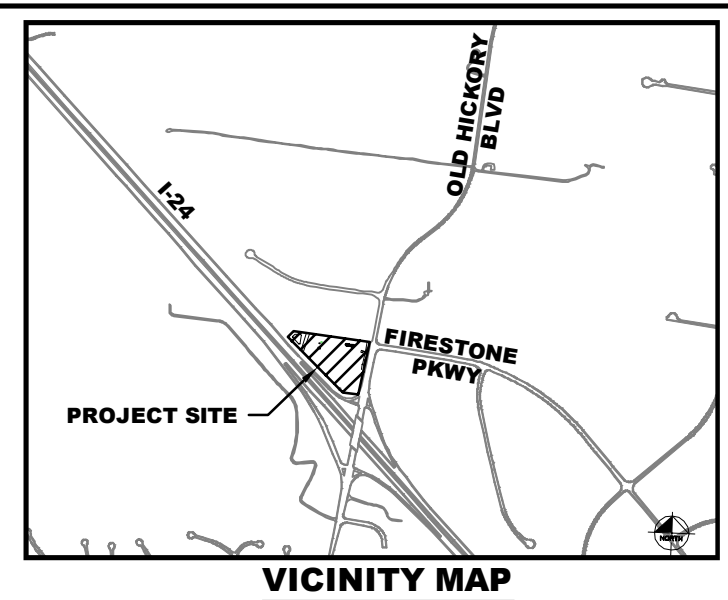
LAYOUT PLAN

THORNTONS
P1407- OLD HICKORY BLVD
ANTIOCH, TN

DATE: 7/30/2015
PROJECT NO.: 148966010
SHEET NUMBER: C2-00

AS-BUILT NOTE:
 IN ACCORDANCE WITH THE METRO STORMWATER MANAGEMENT MANUAL, VOLUME 1, SECTION 3.9, AS-BUILT CERTIFICATIONS, MWS STORMWATER DIVISION MUST APPROVE THE FOLLOWING AS-BUILTS PRIOR TO ISSUANCE OF THE USE & OCCUPANCY PERMIT:
 • UNDERGROUND DETENTION AND WATER QUALITY INFRASTRUCTURE
 • ABOVE-GROUND DETENTION AND WATER QUALITY INFRASTRUCTURE
 • PUBLIC STORM SEWER INFRASTRUCTURE
 • CUT & FILL IN THE FLOODPLAIN
 • ALL EROSION CONTROL MEASURES ARE TO BE REMOVED PRIOR TO AS-BUILT APPROVALS

PUD APPLICATION METRO WATER NOTES:
 1. ANY EXCAVATION, FILL OR DISTURBANCE OF THE EXISTING GROUND ELEVATION MUST BE DONE IN ACCORDANCE WITH THE STORMWATER MANAGEMENT ORDINANCE NO. 78-840 AND APPROVED BY THE METROPOLITAN DEPARTMENT OF WATER SERVICES.
 2. SIZE DRIVEWAY CULVERTS PER THE DESIGN CRITERIA SET FORTH BY THE METRO STORMWATER MANUAL, (MINIMUM DRIVEWAY CULVERT IN METRO R.O.W IS 15" CMP)
 3. THIS DRAWING IS FOR ILLUSTRATION PURPOSES TO INDICATE THE BASIC PREMISE OF THE DEVELOPMENT. THE FINAL LOT COUNT AND DETAILS OF THE PLAN SHALL BE GOVERNED BY THE APPROPRIATE REGULATIONS AT THE TIME OF FINAL APPLICATION.
 4. METRO WATER SERVICES SHALL BE PROVIDED SUFFICIENT AND UNENCUMBERED INGRESS AND EGRESS AT ALL TIMES IN ORDER TO MAINTAIN, REPAIR, REPLACE, AND INSPECT ANY STORMWATER FACILITIES WITHIN THE PROPERTY.
 5. INDIVIDUAL WATER AND/OR SANITARY SEWER SERVICE LINES ARE REQUIRED FOR EACH PARCEL.



PIPE TABLE

NAME	UPSTREAM	DOWNSTREAM	SIZE	LENGTH	SLOPE	MATERIAL
A1 - A0	641.46 (A1)	641.20 (A0)	15"	31'	0.86%	RCP
A2 - A1	642.68 (A2)	641.54 (A1)	15"	35'	3.26%	RCP
A3 - A2	645.50 (A3)	645.39 (A2)	6"	11'	1.00%	PVC
A4 - A2	645.60 (A4)	645.28 (A2)	15"	18'	1.79%	RCP
A4 - A3	645.59 (A4)	645.48 (A3)	6"	14'	0.88%	PVC
A5 - A4	646.36 (A5)	645.70 (A4)	15"	11'	6.32%	RCP
A6 - A4	646.64 (A6)	645.70 (A4)	15"	115'	0.82%	RCP
B2 - B1	646.67 (B2)	646.50 (B1)	15"	18'	0.94%	RCP
B3 - B2	647.27 (B3)	646.77 (B2)	12"	50'	1.01%	RCP
D1 - D0	642.21 (D1)	642.00 (D0)	15"	38'	0.57%	RCP
D3 - D2	646.64 (D3)	646.50 (D2)	12"	20'	0.71%	RCP
D4 - D3	647.18 (D4)	646.74 (D3)	12"	39'	1.15%	RCP
E2 - 48	640.50 (E2)	639.79 (48)	24"	58'	1.25%	RCP
F2 - F1	646.34 (F2)	645.00 (F1)	18"	86'	1.57%	RCP
F3 - F2	647.02 (F3)	646.44 (F2)	18"	159'	0.37%	RCP
G1 - F2	647.56 (G1)	646.44 (F2)	18"	154'	0.74%	RCP
G2 - G1	647.89 (G2)	647.76 (G1)	6"	13'	1.00%	PVC
G3 - G1	647.90 (G3)	647.66 (G1)	18"	17'	1.50%	RCP
G3 - G2	648.11 (G3)	647.99 (G2)	6"	13'	1.00%	PVC
H1 - F3	648.28 (H1)	647.12 (F3)	18"	116'	1.00%	RCP
H2 - H1	650.07 (H2)	648.38 (H1)	18"	169'	1.00%	RCP
H3 - H2	650.77 (H3)	650.35 (H2)	12"	39'	1.09%	RCP

STRUCTURE TABLE

NAME	DESCRIPTION	TOP GRATE
A0	EXISTING	647.69
A1	YARD INLET	643.98
A2	MANHOLE	650.44
A3	WATER QUALITY #1	650.79
A4	AREA DRAIN	650.92
A5	AREA DRAIN	650.86
A6	AREA DRAIN	650.88
B1	HEADWALL	648.44
B2	CURB INLET	649.84
B3	CURB INLET	650.52
D0	EXISTING	646.72
D1	YARD INLET	644.65
D2	HEADWALL	648.17
D3	CURB INLET	648.74
D4	CURB INLET	649.26

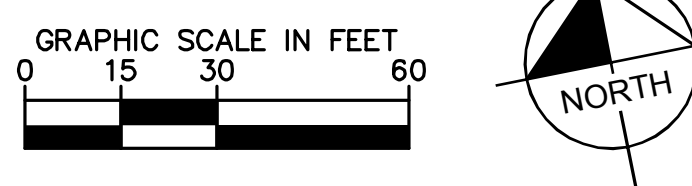
STRUCTURE TABLE

NAME	DESCRIPTION	TOP GRATE
E2	YARD INLET	644.00
F1	HEADWALL	647.21
F2	MANHOLE	649.67
F3	MANHOLE	654.25
G1	MANHOLE	651.41
G2	WATER QUALITY #2	651.64
G3	AREA DRAIN	651.35
H1	AREA DRAIN	652.05
H2	AREA DRAIN	653.01
H3	MANHOLE	653.93

- GRADING NOTES**
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE INTEGRITY AND CONTINUOUS OPERATION OF EXISTING STORM WATER IMPROVEMENTS ON THE PROJECT SITE. ANY DAMAGE OR DIMINISHED CAPACITY MUST BE REPAIRED IMMEDIATELY.
 - CONTRACTOR RESPONSIBLE FOR VERIFYING LOCATION, SIZE, AND ELEVATIONS OF EXISTING UTILITIES AT CONNECTION POINTS PRIOR TO GRADING. NOTIFY OWNER'S REPRESENTATIVE IF DISCREPANCIES ARE FOUND.
 - AREAS FOR CONSTRUCTION THAT REQUIRE DE-WATERING FOR EXCAVATION WILL BE DONE AT NO ADDITIONAL COST TO THE OWNER AND IN ACCORDANCE WITH SECTION 4.14 OF THE TENNESSEE GENERAL NPDES PERMIT FOR DISCHARGES OF STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITIES.
 - ADDITIONAL EROSION CONTROL DEVICES TO BE USED AS REQUIRED BY LOCAL INSPECTOR.
 - DISTURBED AREAS LEFT BARE FOR FIVE DAYS, AND NOT TO FINAL GRADE, WILL BE ESTABLISHED TO TEMPORARY VEGETATION. MULCH, TEMPORARY VEGETATION OR PERMANENT VEGETATION SHALL BE COMPLETED ON ALL EXPOSED AREAS WITHIN 14 DAYS AFTER DISTURBANCE. ALL AREAS TO FINAL GRADE WILL BE ESTABLISHED TO PERMANENT VEGETATION UPON COMPLETION.
 - WHEN HAND PLANTING, MULCH (HAY OR STRAW) SHOULD BE UNIFORMLY SPREAD OVER SEEDING AREA WITHIN 24 HOURS OF SEEDING. IF UNABLE TO ACCOMPLISH, MULCH SHALL BE USED AS A TEMPORARY COVER. CONCENTRATED FLOW AREAS AND ALL SLOPES STEEPER THAN 2:1 AND WITH A HEIGHT OF TEN FEET OR GREATER, DOES NOT APPLY TO RETAINING WALLS, AND CUTS AND FILLS WITHIN BUFFERS, SHALL BE STABILIZED WITH THE APPROPRIATE EROSION CONTROL MATTING OR BLANKETS.
 - THE GRADING PERMIT MUST BE DISPLAYED ON SITE AT ALL TIMES DURING CONSTRUCTION AND IN PLAIN VIEW FROM A PUBLIC ROAD OR STREET.
 - SEEDING AND SEDIMENT CONTROL DEVICES MUST BE DISPLAYED AND INSPECTED PRIOR TO ANY GRADING ON SITE. THE CONTRACTOR MUST CALL FOR AN INSPECTION TO OBTAIN A PERMIT TO GRADE. PLEASE CALL WITH ENOUGH LEAD-TIME FOR AN INSPECTION TO MEET YOUR SCHEDULE.
 - SEEDING, EROSION CONTROL DEVICES MUST BE INSPECTED ACCORDING TO LOCAL AND STATE REQUIREMENTS AND AS STIPULATED IN THE STORMWATER POLLUTION PREVENTION PLAN. EACH DEVICE IS TO BE MAINTAINED OR REPLACED IF SEDIMENT ACCUMULATION HAS REACHED ONE HALF THE CAPACITY OF THE DEVICE. ADDITIONAL DEVICES MAY BE NECESSARY AS THE PROJECT PROGRESSES AND NEW CHANNELS HAVE DEVELOPED.
 - THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO, OR CONCURRENT WITH, LAND-DISTURBING ACTIVITIES.
 - EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION CONTROL AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.
 - CONTRACTOR SHALL REVIEW SITE GEOTECHNICAL REPORT BEFORE COMMENCING GRADING OPERATIONS.
 - SEED ALL DISTURBED AREAS UNLESS OTHERWISE NOTED AS PART OF THIS CONTRACT. REFER TO LANDSCAPING PLANS FOR AREAS TO RECEIVE SO.
 - INSTALL SOO OR RIPRAP IN SWALES AS INDICATED ON GRADING PLANS AND EROSION CONTROL PLANS.
 - TOPSOIL ON SITE TO BE STRIPPED AND STOCKPILED FOR REUSE IN LAWN AREAS.
 - ADAPTED EROSION AND SEDIMENT CONTROL MEASURES, BEST MANAGEMENT PRACTICES, AND/OR OTHER WATER QUALITY MANAGEMENT FACILITIES SHALL BE PROVIDED AND MAINTAINED AT ALL TIMES DURING CONSTRUCTION. DAMAGES TO ADJACENT PROPERTY AND/OR THE CONSTRUCTION SITE CAUSED BY THE CONTRACTORS OR PROPERTY OWNERS FAILURE TO PROVIDE AND MAINTAIN ADEQUATE DRAINAGE AND EROSION/SEDIMENT CONTROL FOR THE CONSTRUCTION AREA SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER AND/OR CONTRACTOR.
 - UNDERGROUND UTILITIES HAVE NOT BEEN VERIFIED BY THE OWNER, DESIGNER, OR THEIR REPRESENTATIVES. BEFORE YOU DIG CALL ONE CALL-811 OR 1-800-762-8007.
 - THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK AND AGREES TO BE RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT RESULT FROM THE CONTRACTORS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY UNDERGROUND UTILITIES TO REMAIN.

- METRO STORMWATER NOTES**
- FEMA NOTE:**
 THIS LOT DOES NOT LIE IN AN AREA DESIGNATED AS A SPECIAL FLOOD HAZARD AREA ACCORDING TO FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP 47037C0388 DATED APRIL 20, 2001
- CONSTRUCTION SCHEDULE:**
- PRE-CONSTRUCTION MEETING
 - INSTALLATION OF EROSION CONTROL MEASURES
 - EROSION INSPECTION BY EPSC AND METRO
 - ISSUANCE OF GRADING PERMIT
 - CONSTRUCTION
- CONSTRUCTION SHALL BE COMPLETED WITHIN 12 MONTHS OF THE GRADING PERMIT BEING ISSUED. IF CONSTRUCTION IS NOT COMPLETE IN THAT AMOUNT OF TIME, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO APPLY FOR AN EXTENSION OF THE GRADING PERMIT.
- TEC NOTICE OF COVERAGE NOTE:**
 THIS PROJECT DISTURBS MORE THAN 1 ACRE AND HAS APPLIED FOR A NOTICE OF COVERAGE UNDER THE TENNESSEE GENERAL CONSTRUCTION PERMIT FROM TOEC.
- THIS PROJECT DISCHARGES TO WEST BRANCH HURRICANE CREEK (TN053020386, 0200), LISTED AS IMPAIRED BY SILTATION ON THE 2014 FINAL 303D LIST OF IMPAIRED WATERS IN TENNESSEE.
- THE TOTAL DISTURBED AREA IS 44.90 ACRES.
- TRACKING NO. TNXXXXXX
 EFFECTIVE DATE: XX-XXX-XX

TAX MAP 183 PARCELS 08, 32



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NO. _____ DATE _____ BY _____

REVISIONS _____

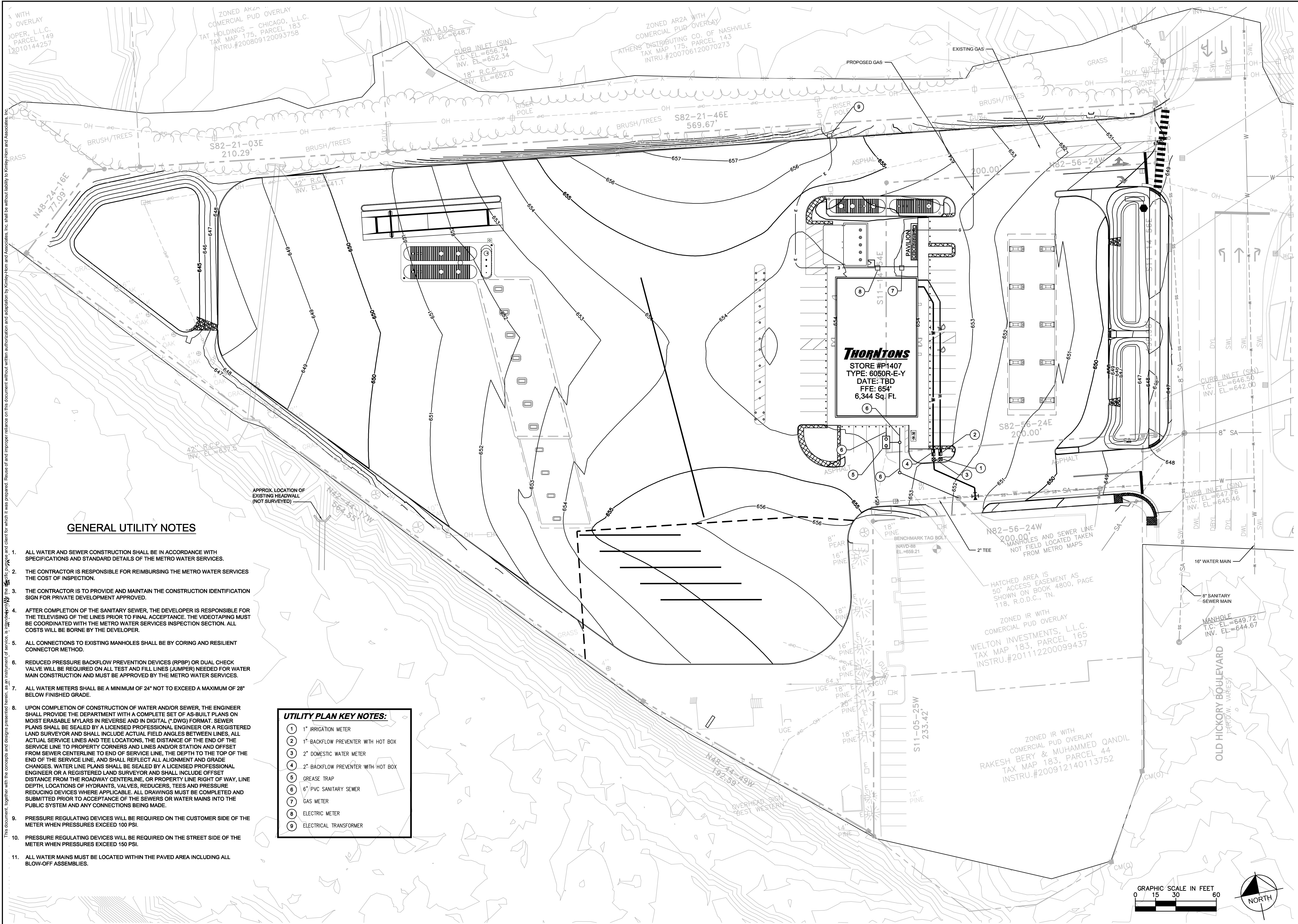
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 KIMLEY-HORN AND ASSOCIATES, INC.
 209 10TH AVENUE SOUTH, NASHVILLE, TN 37203
 PHONE: 615-964-2701
 WWW.KIMLEY-HORN.COM

SCALE: 1" = 30'

DESIGNED BY: JYB
 DRAWN BY: JYB
 CHECKED BY: ZJD

Thorntons
 P1407- OLD HICKORY BLVD
 ANTIOCH, TN

DATE: 7/30/2015
 PROJECT NO.: 14896010
 SHEET NUMBER: C4-00



GENERAL UTILITY NOTES

1. ALL WATER AND SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH SPECIFICATIONS AND STANDARD DETAILS OF THE METRO WATER SERVICES.
2. THE CONTRACTOR IS RESPONSIBLE FOR REIMBURSING THE METRO WATER SERVICES THE COST OF INSPECTION.
3. THE CONTRACTOR IS TO PROVIDE AND MAINTAIN THE CONSTRUCTION IDENTIFICATION SIGN FOR PRIVATE DEVELOPMENT APPROVED.
4. AFTER COMPLETION OF THE SANITARY SEWER, THE DEVELOPER IS RESPONSIBLE FOR THE TELEVISIONING OF THE LINES PRIOR TO FINAL ACCEPTANCE. THE VIDEOTAPING MUST BE COORDINATED WITH THE METRO WATER SERVICES INSPECTION SECTION. ALL COSTS WILL BE BORNE BY THE DEVELOPER.
5. ALL CONNECTIONS TO EXISTING MANHOLES SHALL BE BY CORING AND RESILIENT CONNECTOR METHOD.
6. REDUCED PRESSURE BACKFLOW PREVENTION DEVICES (RPBP) OR DUAL CHECK VALVE WILL BE REQUIRED ON ALL TEST AND FILL LINES (JUMPER) NEEDED FOR WATER MAIN CONSTRUCTION AND MUST BE APPROVED BY THE METRO WATER SERVICES.
7. ALL WATER METERS SHALL BE A MINIMUM OF 24" NOT TO EXCEED A MAXIMUM OF 28" BELOW FINISHED GRADE.
8. UPON COMPLETION OF CONSTRUCTION OF WATER AND/OR SEWER, THE ENGINEER SHALL PROVIDE THE DEPARTMENT WITH A COMPLETE SET OF AS-BUILT PLANS ON MOIST ERASABLE MYLARS IN REVERSE AND IN DIGITAL (.DWG) FORMAT. SEWER PLANS SHALL BE SEALED BY A LICENSED PROFESSIONAL ENGINEER OR A REGISTERED LAND SURVEYOR AND SHALL INCLUDE ACTUAL FIELD ANGLES BETWEEN LINES, ALL ACTUAL SERVICE LINES AND TEE LOCATIONS, THE DISTANCE TO THE END OF THE SERVICE LINE TO PROPERTY CORNERS AND LINES AND/OR STATION AND OFFSET FROM SEWER CENTERLINE TO END OF SERVICE LINE, THE DEPTH TO THE TOP OF THE END OF THE SERVICE LINE, AND SHALL REFLECT ALL ALIGNMENT AND GRADE CHANGES. WATER LINE PLANS SHALL BE SEALED BY A LICENSED PROFESSIONAL ENGINEER OR A REGISTERED LAND SURVEYOR AND SHALL INCLUDE OFFSET DISTANCE FROM THE ROADWAY CENTERLINE, OR PROPERTY LINE RIGHT OF WAY, LINE DEPTH, LOCATIONS OF HYDRANTS, VALVES, REDUCERS AND PRESSURE REDUCING DEVICES WHERE APPLICABLE. ALL DRAWINGS MUST BE COMPLETED AND SUBMITTED PRIOR TO ACCEPTANCE OF THE SEWERS OR WATER MAINS INTO THE PUBLIC SYSTEM AND ANY CONNECTIONS BEING MADE.
9. PRESSURE REGULATING DEVICES WILL BE REQUIRED ON THE CUSTOMER SIDE OF THE METER WHEN PRESSURES EXCEED 100 PSI.
10. PRESSURE REGULATING DEVICES WILL BE REQUIRED ON THE STREET SIDE OF THE METER WHEN PRESSURES EXCEED 150 PSI.
11. ALL WATER MAINS MUST BE LOCATED WITHIN THE PAVED AREA INCLUDING ALL BLOW-OFF ASSEMBLIES.

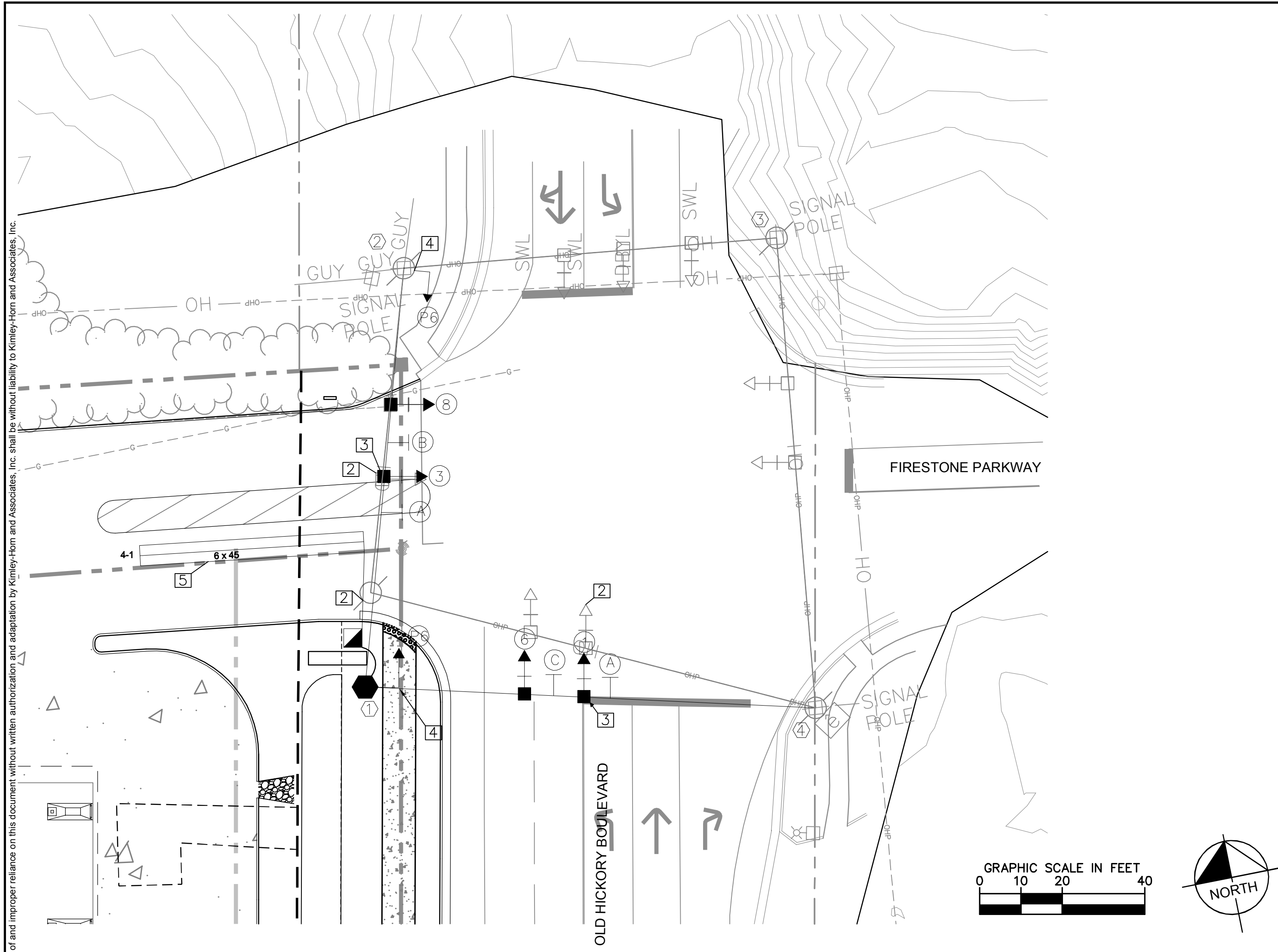
UTILITY PLAN KEY NOTES:

- | | |
|---|------------------------------------|
| 1 | 1" IRRIGATION METER |
| 2 | 1" BACKFLOW PREVENTER WITH HOT BOX |
| 3 | 2" DOMESTIC WATER METER |
| 4 | 2" BACKFLOW PREVENTER WITH HOT BOX |
| 5 | GREASE TRAP |
| 6 | 6" PVC SANITARY SEWER |
| 7 | GAS METER |
| 8 | ELECTRIC METER |
| 9 | ELECTRICAL TRANSFORMER |

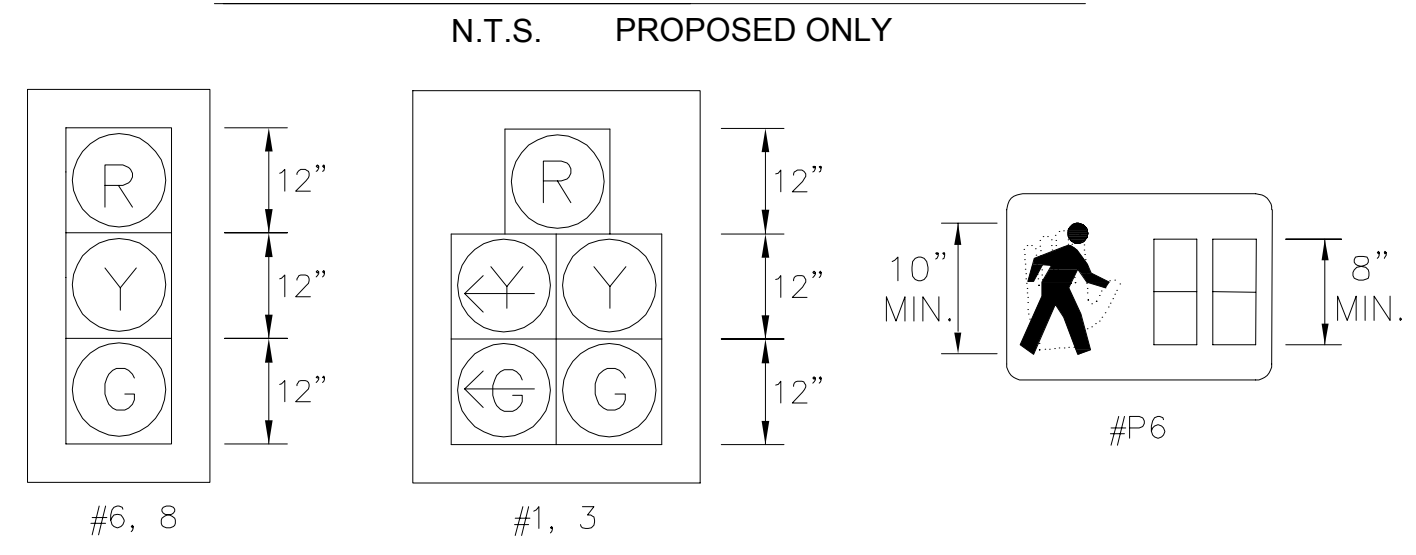
Thorntons
 STORE #P1407
 TYPE: 6050R-E-Y
 DATE: TBD
 FFE: 654'
 6,344 Sq. Ft.

		NO.	REVISIONS	DATE	BY
UTILITY PLAN					
P1407 - OLD HICKORY BLVD ANTIOCH, TN					
DATE		7/30/2015			
PROJECT NO.		148966010			
SHEET NUMBER		C5-00			

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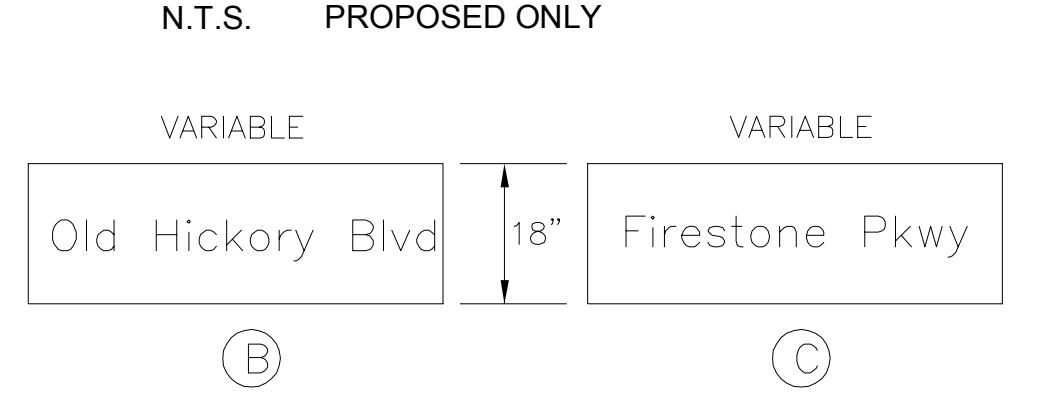


SIGNAL HEAD ASSEMBLIES



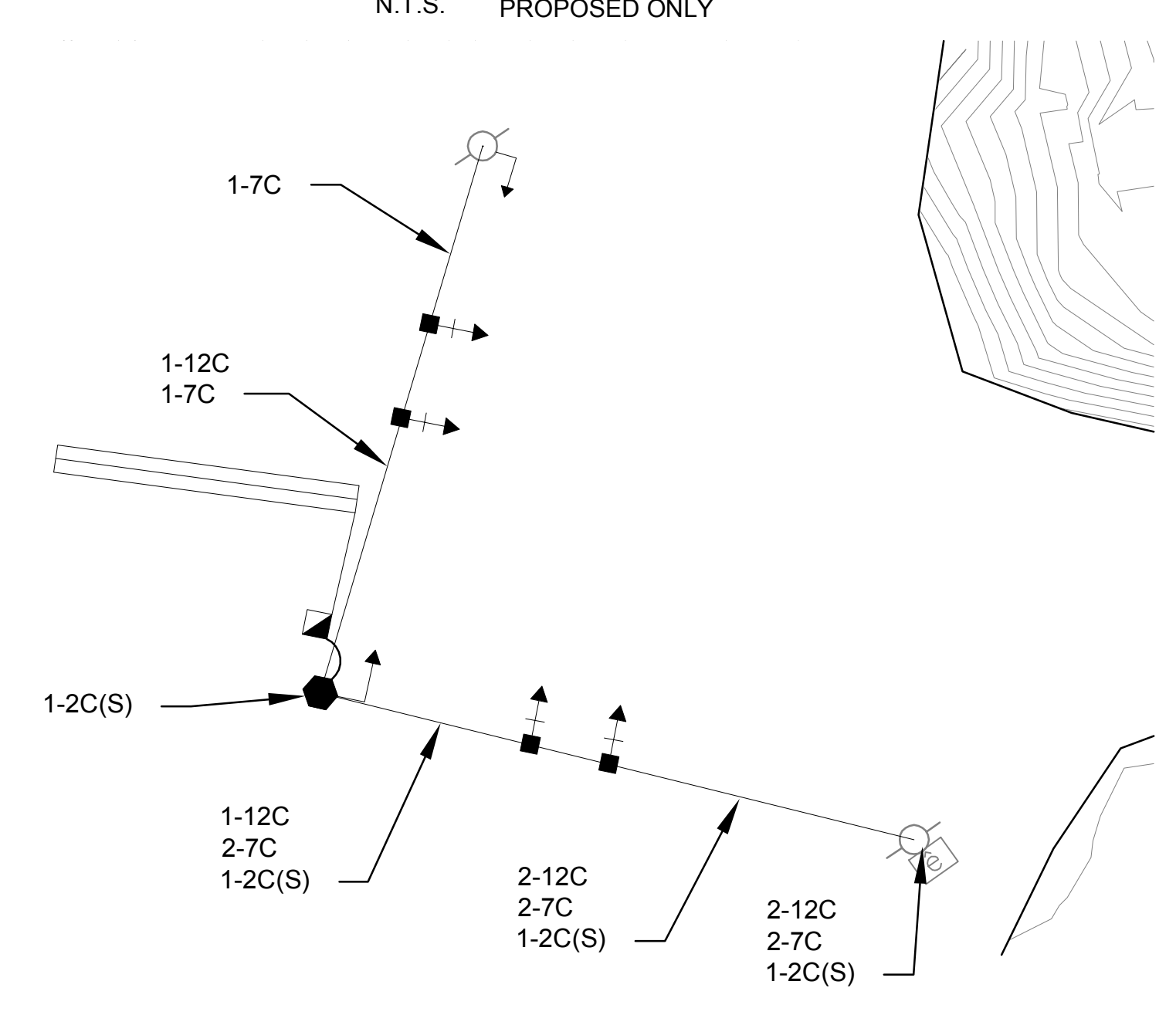
NOTE: PEDESTRIAN SIGNAL HEADS ARE 18"X16"X4.5" MAN/HAND/TIMER COUNTDOWN UNITS.

SIGN DETAIL



- ON (B) AND (C) SIGNS, UPPER CASE LETTERS AND NUMBERS ARE 12 INCH, E (MOD.) SERIES AND LOWER CASE ARE 9 INCH, E (MOD.) SERIES. LETTERING WILL BE WHITE ON A DIAMOND GRADE GREEN BACKGROUND.
- MOUNT ALL SIGNS ON SPAN WIRE, UNLESS OTHERWISE NOTED.

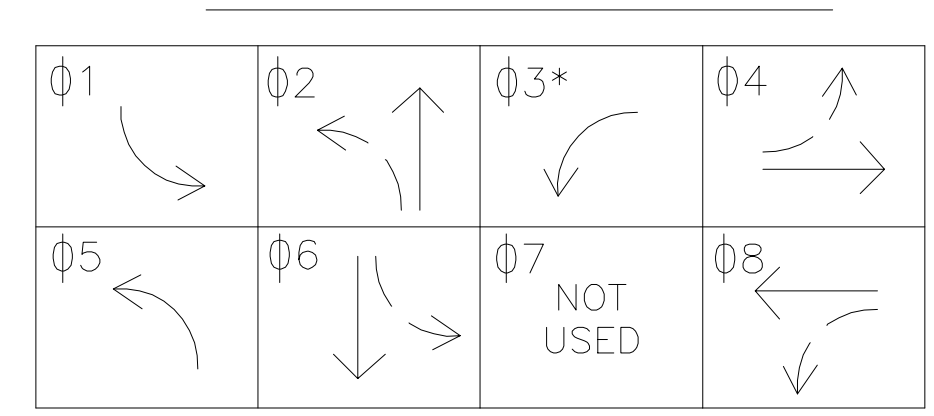
WIRING DIAGRAM



LOOP AND AMPLIFIER ASSIGNMENTS

LOOP	AMP	MODE
Ø 4-1	1	PRESENCE

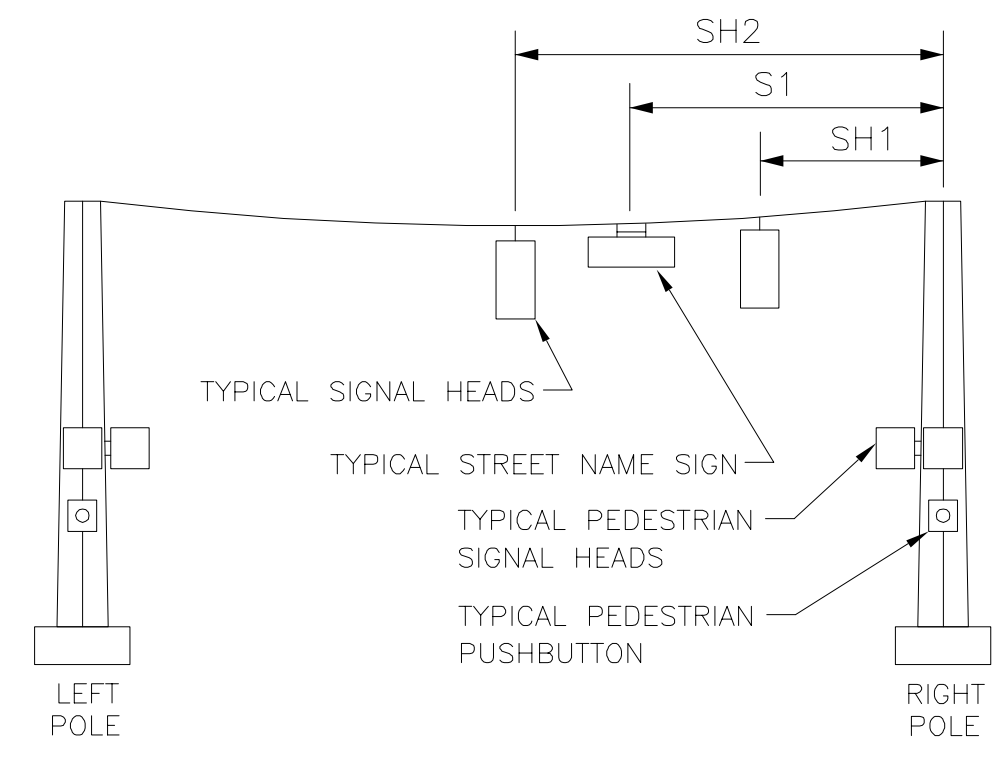
PHASING DIAGRAM



SPAN WIRE DETAILS

RIGHT POLE	S1	S2	SH1	SH2	SH3
①	40'-4.83"	54'-1.47"	0'-0"(PED)	33'-3.48"	47'-8.97"
②	42'-3.08"	59'-2.71"	0'-0"(PED)	33'-1.34"	51'-1.98"

NOTE: ADDITIONAL SIGNS, S2, S3, ETC. ADDITIONAL SIGNAL HEADS, SH3, SH4, ETC.



CONSTRUCTION NOTES

- THE CONTRACTOR IS RESPONSIBLE FOR THE TERMINATION OF ALL FIELD WIRING.
- CONTRACTOR TO REMOVE EXISTING SIGNAL HEADS, SIGNS, SPAN WIRE, AND STRAIN POLE FOLLOWING THE INSTALLATION OF THE PROPOSED STRAIN POLE, SPAN WIRE, SIGNAL HEADS, AND SIGNS. ALL SALVAGED EQUIPMENT SHALL BE RETURNED TO THE CITY. EXISTING STRAIN POLE FOUNDATION SHALL BE REMOVED AND BACK FILLED WITH SUITABLE FILL MATERIAL THAT IS CONSISTENT WITH ADJACENT SURROUNDINGS.
- PROPOSED SIGNAL HEADS SHALL REMAIN BAGGED UNTIL EXISTING SIGNAL HEADS ARE REMOVED.
- PROPOSED PEDESTRIAN SIGNAL INFRASTRUCTURE SHALL INCLUDE THE FOLLOWING COMPONENTS: COUNT DOWN PEDESTRIAN SIGNAL HEAD ASSEMBLY AND INTEGRATED AUDIBLE PEDESTRIAN SIGNAL SYSTEM.
- REUSE EXISTING LOOP DETECTORS AND LOOP LEADS, EXCEPT WHERE NOTED ON THE PLANS. SHOULD THE LOOP LEADS NOT BE SUITABLE TO REUSE CONTRACTOR TO COORDINATE WITH THE ENGINEER FOR PROPOSED LOOP AND WIRING DESIGNS.

LEGEND

- PROPOSED PEDESTRIAN SIGNAL HEAD
- EXISTING SIGNAL HEAD
- EXISTING STEEL STRAIN POLE
- PROPOSED SIGNAL HEAD WITH BACKPLATE
- EXISTING POLE MOUNTED CONTROLLER CABINET
- PROPOSED PULL BOX TYPE "B", TRAFFIC RATED
- PROPOSED SPAN MOUNTED SIGN
- INDUCTIVE QUADRUPOLE LOOP DETECTOR (6'X45')
- PROPOSED STEEL STRAIN POLE

Kimley»Horn

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NASHVILLE, TN 37203
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ACCEPTED BY : _____
DATE : _____

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

INTERSECTION NO. 4698

STANDARD
SIGNAL LAYOUT
FOR SPAN WIRE

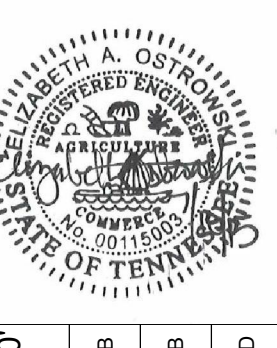
OLD HICKORY BOULEVARD
AT FIRESTONE PARKWAY

SCALE: 1" = 20'

T1-00

NO.	REVISIONS	DATE	BY

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PHONE: 615-564-2701
WWW.KIMLEY-HORN.COM



SCALE: 1" = 20'
DESIGNED BY: JYB
DRAWN BY: JYB
CHECKED BY: ZJD

TRAFFIC

THORNTONS
P1407- OLD HICKORY BLVD
ANTIOCH, TN

DATE
7/30/2015
PROJECT NO.
148966010

SHEET NUMBER
T1-00

SIGNAL SUPPORT POLE DATA

PROPOSED ONLY

POLE NO.	POLE TYPE	HEIGHT	ATTACH. HEIGHT * 24'-0" S 25'-0" E	FOOTING DEPTH ** X'-X"	FOOTING DESIGN MOMENT @ BASE OF POLE ** X FT·LB
①	STEEL STRAIN POLE	32'-0"			

- * ATTACHMENT HEIGHTS HAVE BEEN COMPUTED ASSUMING 5% SAG IN THE LENGTH OF THE SPAN WIRE.
- * * PROVIDED FOR ESTIMATION PURPOSES ONLY. CONTRACTOR SHALL SUBMIT SIGNAL POLE FOOTING DESIGN CALCULATIONS ALONG WITH SHOP DRAWINGS FOR APPROVAL PRIOR TO FABRICATION. DESIGN SHALL BE BASED UPON AASHTO LOADING AND DESIGN CRITERIA PUBLISHED IN THE LATEST EDITION OF "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS".

SPAN WIRE DATA

PROPOSED ONLY

SPAN	LENGTH	MIN. BREAKING STRENGTH
1-2	101'-8.52"	22,300 lbs
4-1	103'-10.92"	22,300 lbs

NOTE:
MIN. BREAKING STRENGTH IS BASED ON 4% MINIMUM SAG IN THE LENGTH OF THE SPAN WIRE AND A SAFETY FACTOR OF 3.

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
713-15.08	SUSPENDED FLAT SHEET ALUMINUM SIGN (0.100" THICK)	4	EACH
730-01.02	REMOVAL OF SIGNAL EQUIPMENT	1	L.S.
730-02.09	SIGNAL HEAD ASSEMBLY (130 WITH BACKPLATE)	2	EACH
730-02.17	SIGNAL HEAD ASSEMBLY (150 A2H WITH BACKPLATE) - LEFT	2	EACH
730-03.21	INSTALL PULL BOX (TYPE B)	1	EACH
730-08.03	SIGNAL CABLE - 7 CONDUCTOR	370	L.F.
730-08.05	SIGNAL CABLE - 12 CONDUCTOR	190	L.F.
730-09.01	SPAN WIRE ASSEMBLY (22,300 LBS.MIN.BRK STRENGTH)	220	L.F.
730-12.02	CONDUIT 2" DIAMETER (PVC)	10	L.F.
730-13.08	VEHICLE DETECTOR (2-CHANNEL, RACK MOUNT)	1	EACH
730-14.01	SHIELDED DETECTOR CABLE	150	L.F.
730-14.02	SAW SLOT	160	L.F.
730-14.03	LOOP WIRE	415	L.F.
730-23.01	STEEL STRAIN POLE (SIGNAL SUPPORT)	1	EACH
730-26.05	COUNTDOWN PEDESTRIAN SIGNAL DISPLAY	2	EACH

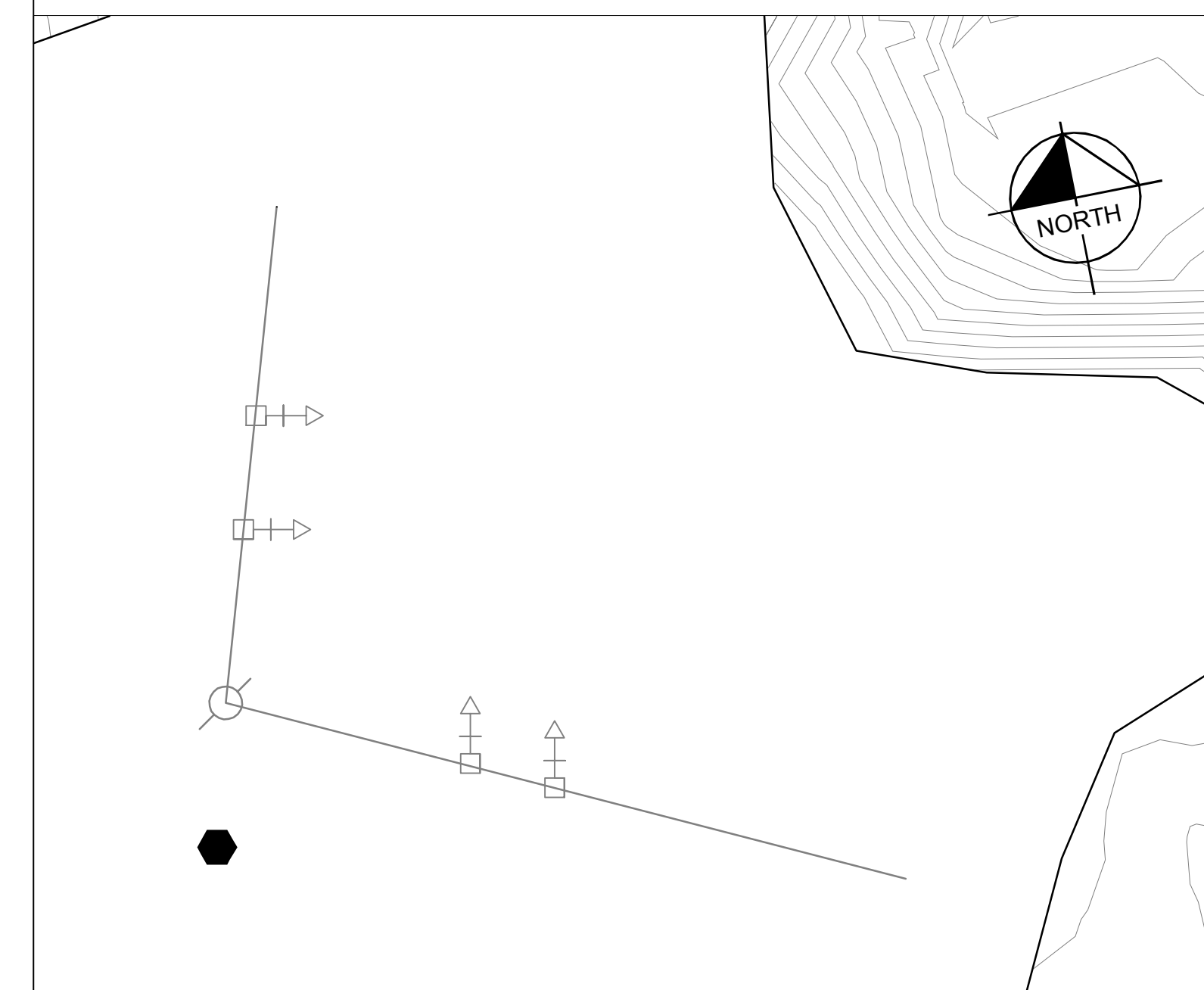
- NOTE: CABINET AND CONTROLLER INSTALLATION INCLUDES FOUNDATION AND ACTIVATION
- NOTE: PUSHBUTTON POST AND CANTILEVER SIGNAL SUPPORT INSTALLATIONS INCLUDE CONCRETE FOUNDATION

SIGNAL NOTES

- ALL CONSTRUCTION, EQUIPMENT, AND INSTALLATION PROCEDURES SHALL COMPLY WITH THE TENNESSEE DEPARTMENT OF TRANSPORTATION (TDOT) STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. SIGNAL INSTALLATION AND EQUIPMENT SHALL COMPLY WITH SECTION 730N-TRAFFIC SIGNALS. ALL PAVEMENT MARKINGS SHALL COMPLY WITH SECTION 716-PAVEMENT MARKINGS.
- THE CONTRACTOR SHALL SUBMIT A MATERIALS LIST TO MDPW FOR REVIEW AND APPROVAL PRIOR TO START OF CONSTRUCTION (MIKE DAVIS, MDPW, 615-862-8766).
- INITIAL SIGNAL TIMINGS ARE TO BE PROVIDED BY MDPW. THE CONTRACTOR SHALL NOTIFY MDPW A MINIMUM OF THIRTY (30) DAYS PRIOR TO ACTIVATION OF THE TRAFFIC SIGNAL.
- ~~CONSTRUCT THE CONTROLLER CABINET AND FOUNDATION IN ACCORDANCE WITH TDOT STANDARD DRAWINGS. AN APPROPRIATE CABINET AND FOUNDATION SHALL BE INSTALLED.~~
- ~~THE CONTRACTOR SHALL CONNECT THE EXISTING SIGNAL COMMUNICATIONS CABLE TO THE NEW TRAFFIC SIGNAL CONTROLLER CABINET. THE CONNECTION SHALL BE MADE BY SPLICING THE EXISTING CABLE IN A MANNER ACCEPTABLE TO MDPW. THE CONTRACTOR SHALL COORDINATE THIS WORK WITH MDPW AND RECEIVE MDPW APPROVAL PRIOR TO SPLICING THE EXISTING CABLE.~~
- ALL UTILITY LOCATIONS, AS SHOWN, ARE APPROXIMATE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY EACH INDIVIDUAL UTILITY OWNER OF HIS PLAN OF OPERATION IN THE AREA OF UTILITIES. PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL CONTACT THE RESPECTIVE UTILITY ON THE GROUND. THIS NOTIFICATION SHALL BE GIVEN AT LEAST THREE (3) BUSINESS DAYS PRIOR TO COMMENCEMENT OF OPERATIONS AROUND THE UTILITY. SOME UTILITIES CAN BE LOCATED BY CALLING THE TENNESSEE ONE CALL SYSTEM, INC., AT 1-800-351-1111.
- ~~THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ELECTRICAL SERVICE TO THE SITE.~~
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE LOCAL UTILITIES FOR ANY "MAKE READY" WORK REQUIRED. THE CONTRACTOR SHALL INCLUDE COST OF "MAKE READY" WORK, IF ANY, IN THE BID.
- ~~CONTRACTOR SHALL INSTALL A 50 AMP, 2-POLE WEATHERPROOF EXTERNAL DISCONNECT ON THE POLE WITH A/G SERVICE CONNECTION. ENCLOSURE SHALL BE METALLIC WITH A 50 AMP SINGLE POLE CIRCUIT BREAKER.~~
- VEHICLE DETECTION LOOPS SHALL MEASURE 6' X 45' WITH TWO TURNS OF WIRE, UNLESS SPECIFIED OTHERWISE. LOOPS SHALL BE CENTERED IN THE TRAVEL LANES. LOOPS SHALL BE INSTALLED IN ACCORDANCE WITH TDOT STANDARD DRAWINGS, UNLESS OTHERWISE NOTED.
- ALL EQUIPMENT NECESSARY FOR VIDEO DETECTION SHALL BE FURNISHED AND INSTALLED IN THE CABINET.
- TRAFFIC SIGNAL SUPPORT POLES SHALL BE TDOT STANDARD ROUND, TAPERED, GALVANIZED STEEL STRAIN POLES IN ACCORDANCE WITH TDOT STANDARD DRAWINGS.
- ALL FOUNDATIONS SHALL HAVE A SPARE 3-INCH STUBOUT PARALLEL TO THE ROAD (POLES AND CONTROLLER).
- THE PROPOSED LOCATIONS FOR THE SIGNAL SUPPORT POLES, AS SHOWN ON THESE PLANS, ARE APPROXIMATE. SOME FIELD ADJUSTMENT MAY BE REQUIRED IN ORDER TO AVOID CONFLICT WITH EITHER OVERHEAD OR UNDERGROUND UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING AND STAKING THE OPTIMUM LOCATIONS FOR THESE POLES AND FOR RECEIVING APPROVAL FROM THE ENGINEER AND THE APPROPRIATE UTILITIES BEFORE INSTALLATION BEGINS. PROPER ROADSIDE CLEAR ZONES SHALL BE OBSERVED.
- SHAFTS FOR FOOTINGS SHALL BE DRILLED THROUGH FIRM, UNDISTURBED, UNSATURATED SOIL AND SHALL BE VISUALLY INSPECTED BY THE ENGINEER OR ENGINEERING REPRESENTATIVE PRIOR TO PLACEMENT OF REINFORCEMENT. THE ENGINEER OR ENGINEERING REPRESENTATIVE SHALL BE ADVISED BY THE CONTRACTOR OF ANY GROUND WATER OR LOOSE SOIL ENCOUNTERED DURING DRILLING. FOOTINGS SHALL COMPLY WITH TDOT STANDARD DRAWINGS.
- ANY SIGNAL HEADS VISIBLE TO DRIVERS BUT NOT OPERATIONAL SHALL BE COMPLETELY COVERED.
- SIGNAL HEADS SHALL FLASH A MINIMUM OF SEVEN (7) DAYS PRIOR TO ACTIVATION OF THE TRAFFIC SIGNAL, UNLESS OTHERWISE SPECIFIED BY MDPW TRAFFIC ENGINEER.
- IF FIELD ADJUSTMENTS RESULT IN CHANGES TO SIGNAL HEAD PLACEMENT, ATTACHMENT HEIGHTS, OR SPAN WIRE/MAST ARM LENGTH, THE ENGINEER SHALL BE ADVISED AND SHOP DRAWINGS SHALL BE RE-EVALUATED TO VERIFY THAT THE CHANGES ARE STRUCTURALLY ACCEPTABLE.
- ALL STOP LINES, CROSSWALK LINES, AND PAVEMENT ARROWS SHALL BE THERMOPLASTIC. STOP LINES SHALL BE 24 INCHES WIDE. ALL CONFLICTING MARKINGS SHALL BE REMOVED USING AN ACCEPTABLE METHOD AS SPECIFIED BY TDOT SPECIFICATION SECTION 712-TEMPORARY TRAFFIC CONTROL. EXISTING PAVEMENT MARKINGS SHALL BE REAPPLIED AS NECESSARY.
- STREET NAME SIGNS ARE TO BE PROVIDED BY MDPW AND INSTALLED BY CONTRACTOR. CONTACT MDPW SIGN SHOP A MINIMUM OF TWO WEEKS PRIOR TO EXPECTED SIGN INSTALLATION DATE FOR SIGN PREPARATION.
- ALL ITEMS INSTALLED WITHIN THE PEDESTRIAN PATH OF TRAVEL (I.E. SIDEWALK) SHALL MEET THE METRO PUBLIC WORKS STANDARD DETAILS. THIS INCLUDES A MINIMUM PATH OF TRAVEL WIDTH OF 60" AND A PROTRUDING OBJECT LIMIT OF 4" IF MOUNTED AT A HEIGHT BETWEEN 27" AND 80" AND WITHIN THE PATH OF TRAVEL. VARIANCES MUST BE APPROVED BY MDPW.
- EXISTING SIGNAL EQUIPMENT TO BE REMOVED BY THE CONTRACTOR. ALL SALVAGED EQUIPMENT TO BE RETURNED TO MDPW.
- EXISTING SIGNAL EQUIPMENT SHALL REMAIN IN OPERATION UNTIL NEW SIGNAL EQUIPMENT IS COMPLETE AND IN FULL OPERATION.
- ALL NEW SIGNAL HEADS SHALL BE FABRICATED FROM ALUMINUM AND SHALL BE PAINTED BLACK. ALL NEW SIGNAL HEADS SHALL BE LED TYPE, DIALIGHT OR METRO APPROVED ALTERNATE. SIGNAL HEAD EQUIPMENT (I.E. FRAME AND ILLUMINATION TYPE) SHALL BE APPROVED BY METRO PUBLIC WORKS PRIOR TO INSTALLATION. CONTACT CHIP KNAUF - METRO TRAFFIC ENGINEERING 880-2443.
- ~~CABINET AND CONTROLLER MUST HAVE ALL EQUIPMENT NECESSARY TO PROVIDE SIGNAL COMMUNICATION VIA PHONE DROP. THIS INCLUDES COMMUNICATION PANEL, MATS/MIST COMPATIBLE CONTROLLER, AND OTHER CABINET WIRING. THIS DOES NOT INCLUDE THE INSTALLATION OF THE PHONE LINE ITSELF. CONTROLLER TO INCLUDE A COORDINATION MODULE ("D" MODULE) AND A DIGITAL SIGNAL PROCESSING MODULE (DSP).~~
- ~~CABINET AND CONTROLLER MUST HAVE ALL EQUIPMENT NECESSARY TO PROVIDE SIGNAL COMMUNICATION VIA FIBER/COPPER INTERCONNECT. THIS INCLUDES COMMUNICATION PANEL, MATS COMPATIBLE CONTROLLER, AND OTHER CABINET WIRING. CABINET/CONTROLLER TO INCLUDE A COORDINATION MODULE ("D" MODULE) AND A DIGITAL SIGNAL PROCESSING MODULE (DSP).~~
- ~~CABINET AND CONTROLLER MUST HAVE ALL EQUIPMENT NECESSARY TO PROVIDE SIGNAL COMMUNICATION VIA FIBER/COPPER INTERCONNECT. THIS INCLUDES COMMUNICATION PANEL, MIST COMPATIBLE CONTROLLER, AND OTHER CABINET WIRING. CABINET/CONTROLLER TO INCLUDE A COORDINATION MODULE ("D" MODULE) AND A DIGITAL SIGNAL PROCESSING MODULE (DSP).~~

REMOVAL DIAGRAM

N.T.S.



REMOVAL ITEMS

- 1. VEHICULAR SIGNAL DISPLAYS
- 2. SPAN WIRE
- 3. WOOD STRAIN POLE
- 4. SPAN MOUNTED SIGNS

Kimley»Horn

SUITE 501
209 TENTH AVENUE SOUTH NASHVILLE, TN 37203
2014 Kimley-Horn and Associates, Inc. TEL: (615) 564-2701

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ACCEPTED BY : _____
DATE : _____

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

INTERSECTION NO. 4698

STANDARD
SIGNAL LAYOUT
FOR SPAN WIRE

OLD HICKORY BOULEVARD
AT FIRESTONE PARKWAY

SCALE: 1" = 20'

T1-01

Kimley»Horn
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209 TENTH AVENUE SOUTH, NASHVILLE, TN 37203
PHONE: 615-564-2701
WWW.KIMLEY-HORN.COM



SCALE: N/A
DESIGNED BY: JYB
DRAWN BY: JYB
CHECKED BY: ZJD

TRAFFIC SIGNAL
NOTES

Thorntons
P1407- OLD HICKORY BLVD
ANTIOCH, TN

DATE
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SHEET NUMBER

T1-01

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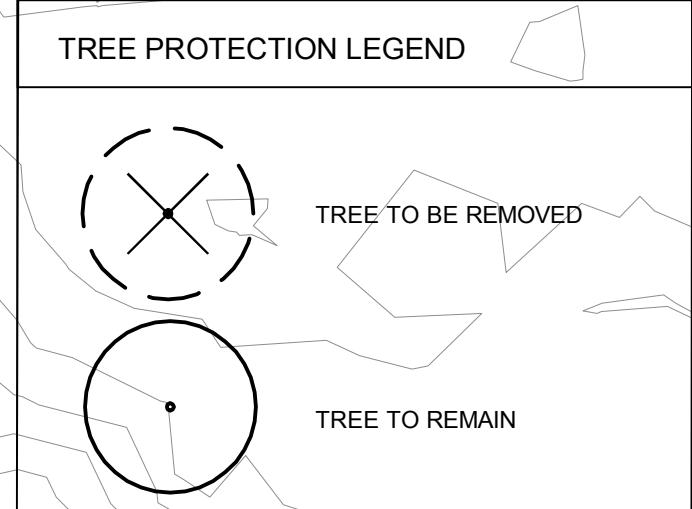
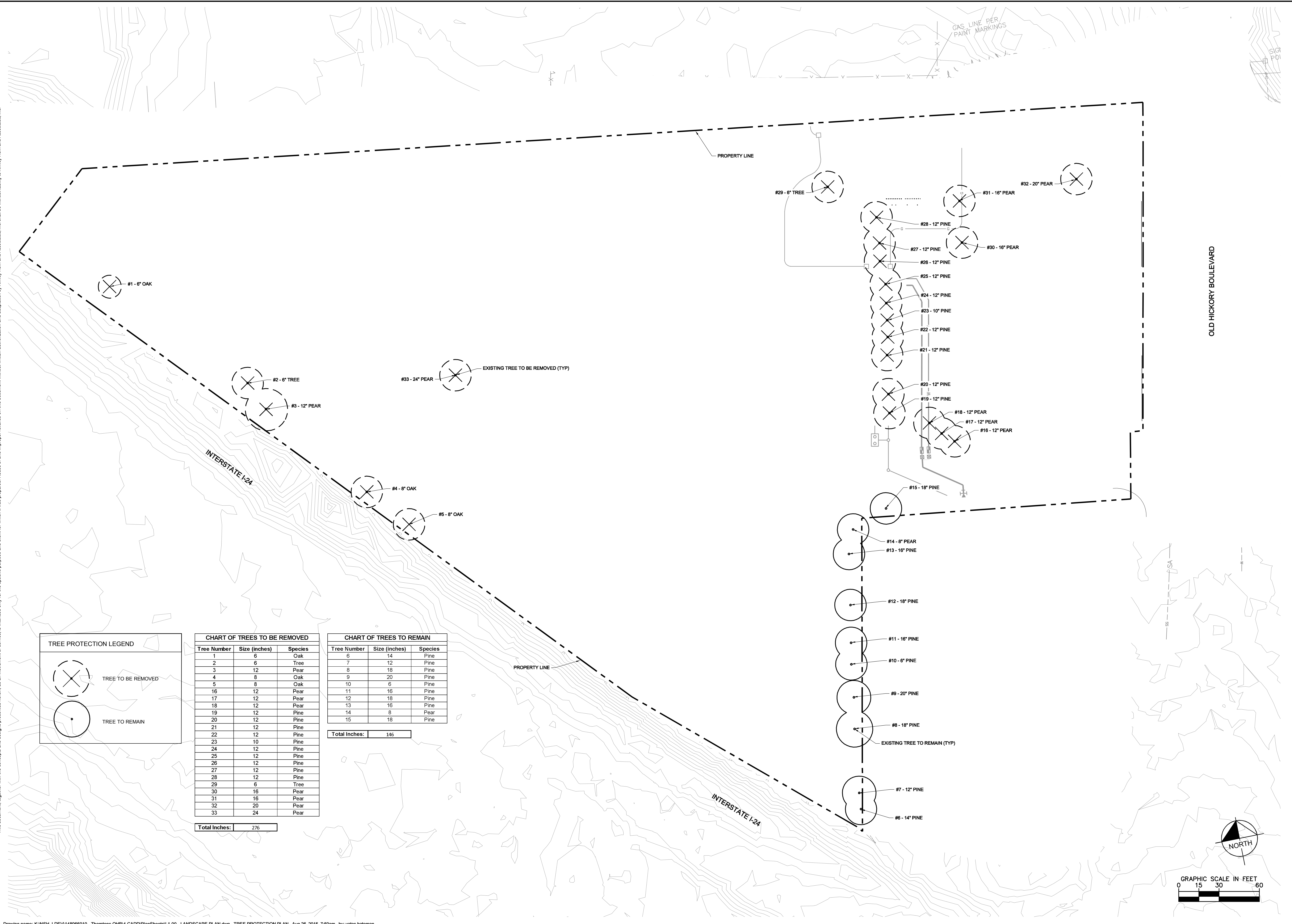


CHART OF TREES TO BE REMOVED		
Tree Number	Size (inches)	Species
1	6	Oak
2	6	Tree
3	12	Pear
4	8	Oak
5	8	Oak
16	12	Pear
17	12	Pear
18	12	Pear
19	12	Pine
20	12	Pine
21	12	Pine
22	12	Pine
23	10	Pine
24	12	Pine
25	12	Pine
26	12	Pine
27	12	Pine
28	12	Pine
29	6	Tree
30	16	Pear
31	16	Pear
32	20	Pear
33	24	Pear

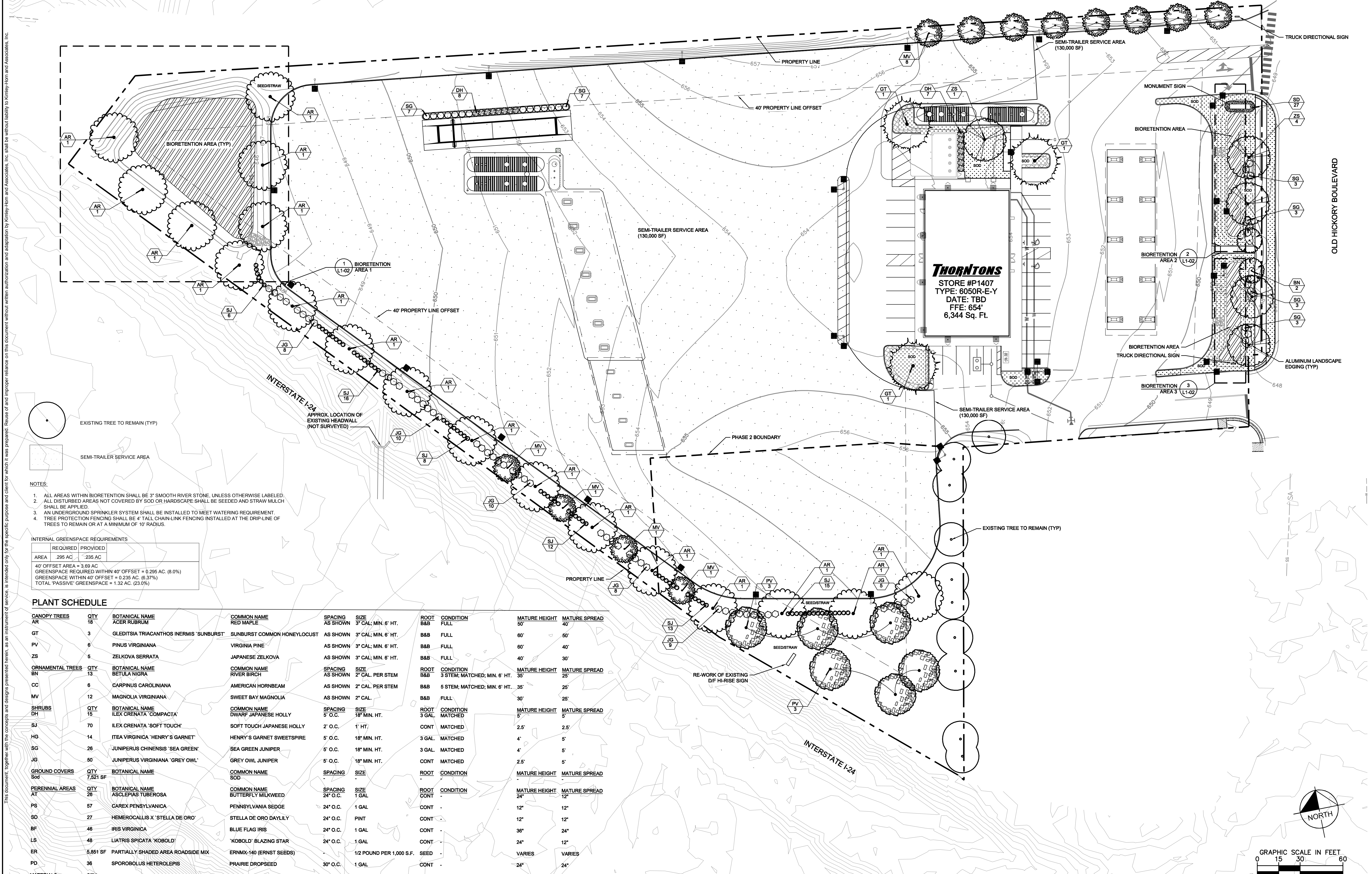
Total Inches: 276

CHART OF TREES TO REMAIN		
Tree Number	Size (inches)	Species
6	14	Pine
7	12	Pine
8	18	Pine
9	20	Pine
10	8	Pine
11	16	Pine
12	18	Pine
13	16	Pine
14	8	Pear
15	18	Pine

Total Inches: 146

<h2 style="margin: 0;">TREE PROTECTION PLAN</h2>	<p style="font-size: small; margin: 0;">SCALE: 1"=30'</p> <p style="font-size: x-small; margin: 0;">DESIGNED BY: NMS DRAWN BY: NMS CHECKED BY: ARE</p>												
<h1 style="margin: 0;">THORNTONS</h1> <p style="margin: 0;">P1407- OLD HICKORY BLVD ANTIOCH, TN</p>													
<p style="margin: 0;">DATE 7/30/2015</p> <p style="margin: 0;">PROJECT NO. 148966010</p> <p style="margin: 0;">SHEET NUMBER L1-00</p>	<p style="margin: 0;">REVISIONS</p> <table border="1" style="width: 100%; border-collapse: collapse; font-size: x-small;"> <thead> <tr> <th>No.</th> <th>DATE</th> <th>BY</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>	No.	DATE	BY									
No.	DATE	BY											
<p style="margin: 0;">Kimley»Horn KIMLEY-HORN AND ASSOCIATES, INC. 209 10TH AVENUE SOUTH, NASHVILLE, TN 37203 PHONE: 615-564-2701 WWW.KIMLEY-HORN.COM</p>													

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- NOTES:**
1. ALL AREAS WITHIN BIORETENTION SHALL BE 3" SMOOTH RIVER STONE, UNLESS OTHERWISE LABELED.
 2. ALL DISTURBED AREAS NOT COVERED BY SOD OR HARDSCAPE SHALL BE SEEDED AND STRAW MULCH SHALL BE APPLIED.
 3. AN UNDERGROUND SPRINKLER SYSTEM SHALL BE INSTALLED TO MEET WATERING REQUIREMENT.
 4. TREE PROTECTION FENCING SHALL BE 4' TALL CHAIN-LINK FENCING INSTALLED AT THE DRIP-LINE OF TREES TO REMAIN OR AT A MINIMUM OF 10' RADIUS.

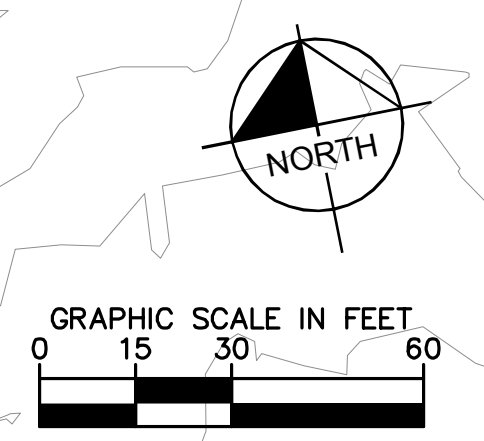
INTERNAL GREENSPACE REQUIREMENTS

AREA	REQUIRED	PROVIDED
AREA 1	.295 AC	.235 AC

40' OFFSET AREA = 3.69 AC
 GREENSPACE REQUIRED WITHIN 40' OFFSET = 0.295 AC. (8.0%)
 GREENSPACE WITHIN 40' OFFSET = 0.235 AC. (6.37%)
 TOTAL 'PASSIVE' GREENSPACE = 1.32 AC. (23.0%)

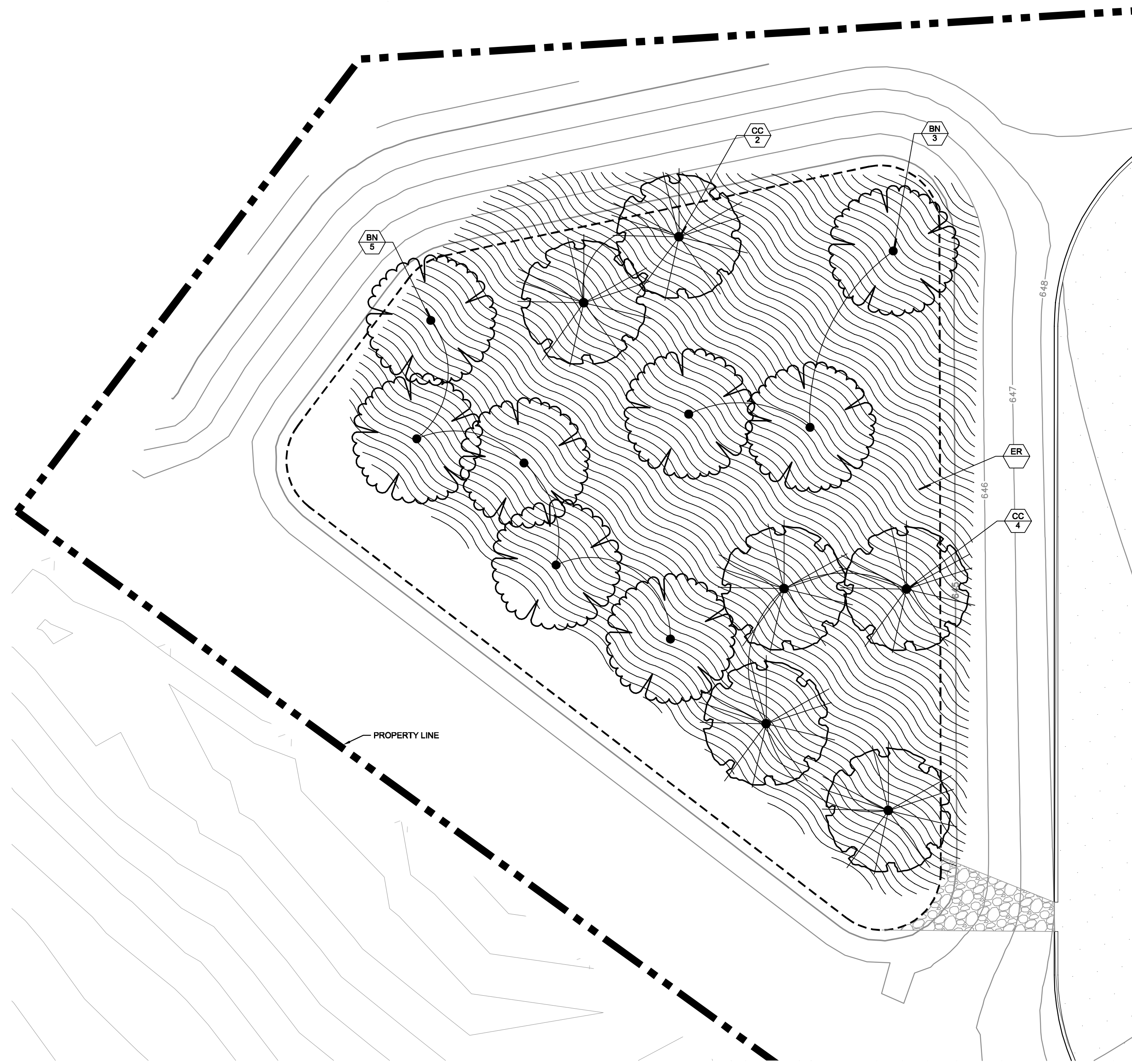
PLANT SCHEDULE

CANOPY TREES	QTY	BOTANICAL NAME	COMMON NAME	SPACING	SIZE	ROOT	CONDITION	MATURE HEIGHT	MATURE SPREAD
AR	18	ACER RUBRUM	RED MAPLE	AS SHOWN	3" CAL; MIN. 6' HT.	B&B	FULL	50'	40'
GT	3	GLEDITSIA TRIACANTHOS INERMIS 'SUNBURST'	SUNBURST COMMON HONEYLOCUST	AS SHOWN	3" CAL; MIN. 6' HT.	B&B	FULL	60'	50'
PV	6	PINUS VIRGINIANA	VIRGINIA PINE	AS SHOWN	3" CAL; MIN. 6' HT.	B&B	FULL	60'	40'
ZS	5	ZELKOVA SERRATA	JAPANESE ZELKOVA	AS SHOWN	3" CAL; MIN. 6' HT.	B&B	FULL	40'	30'
ORNAMENTAL TREES	QTY	BOTANICAL NAME	COMMON NAME	SPACING	SIZE	ROOT	CONDITION	MATURE HEIGHT	MATURE SPREAD
BN	13	BETULA NIGRA	RIVER BIRCH	AS SHOWN	2" CAL PER STEM	B&B	3 STEM; MATCHED; MIN. 6' HT.	35'	25'
CC	6	CARPINUS CAROLINIANA	AMERICAN HORNBEAM	AS SHOWN	2" CAL PER STEM	B&B	5 STEM; MATCHED; MIN. 6' HT.	35'	25'
MV	12	MAGNOLIA VIRGINIANA	SWEET BAY MAGNOLIA	AS SHOWN	2" CAL.	B&B	FULL	30'	25'
SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SPACING	SIZE	ROOT	CONDITION	MATURE HEIGHT	MATURE SPREAD
DH	15	ILEX CRENATA 'COMPACTA'	DWARF JAPANESE HOLLY	5' O.C.	18" MIN. HT.	3 GAL.	MATCHED	5'	5'
SJ	70	ILEX CRENATA 'SOFT TOUCH'	SOFT TOUCH JAPANESE HOLLY	2' O.C.	1' HT.	CONT.	MATCHED	2.5'	2.5'
HG	14	ITEA VIRGINICA 'HENRY'S GARNET'	HENRY'S GARNET SWEETSPIRE	5' O.C.	18" MIN. HT.	3 GAL.	MATCHED	4'	5'
SG	26	JUNIPERUS CHINENSIS 'SEA GREEN'	SEA GREEN JUNIPER	5' O.C.	18" MIN. HT.	3 GAL.	MATCHED	4'	5'
JG	50	JUNIPERUS VIRGINIANA 'GREY OWL'	GREY OWL JUNIPER	5' O.C.	18" MIN. HT.	CONT.	MATCHED	2.5'	5'
GROUND COVERS	QTY	BOTANICAL NAME	COMMON NAME	SPACING	SIZE	ROOT	CONDITION	MATURE HEIGHT	MATURE SPREAD
Sod	7,521 SF		SOD						
PERENNIAL AREAS	QTY	BOTANICAL NAME	COMMON NAME	SPACING	SIZE	ROOT	CONDITION	MATURE HEIGHT	MATURE SPREAD
AT	26	ASCLEPIAS TUBEROSA	BUTTERFLY MILKWEED	24" O.C.	1 GAL	CONT.		24"	12"
PS	57	CAREX PENNSYLVANICA	PENNSYLVANIA SEDGE	24" O.C.	1 GAL	CONT.		12"	12"
SD	27	HEMEROCALLIS X 'STELLA DE ORO'	STELLA DE ORO DAYLILY	24" O.C.	PINT	CONT.		12"	12"
BF	46	IRIS VIRGINICA	BLUE FLAG IRIS	24" O.C.	1 GAL	CONT.		36"	24"
LS	48	LIATRIS SPICATA 'KOBOLD'	'KOBOLD' BLAZING STAR	24" O.C.	1 GAL	CONT.		24"	12"
ER	5,851 SF	PARTIALLY SHADED AREA ROADSIDE MIX	ERNMX-140 (ERNST SEEDS)		1/2 POUND PER 1,000 S.F.	SEED		VARIES	VARIES
PD	36	SPOROBOLUS HETEROLEPIS	PRAIRIE DROPSOED	30" O.C.	1 GAL	CONT.		24"	24"
MATERIALS	QTY								
	270 LF	ALUMINUM LANDSCAPE EDGING							

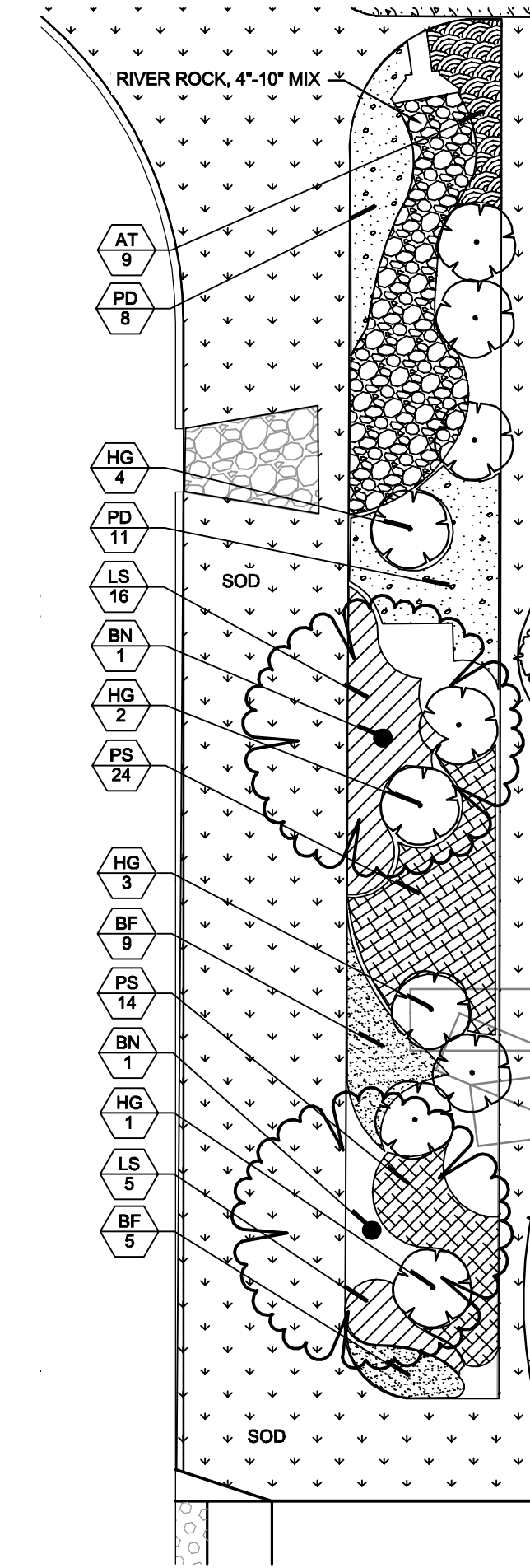


<h1 style="margin: 0;">Kimley»Horn</h1> <p style="font-size: small; margin: 0;">KIMLEY-HORN AND ASSOCIATES, INC. 209 10TH AVENUE SOUTH, NASHVILLE, TN 37203 PHONE: 615-564-2701 WWW.KIMLEY-HORN.COM</p>	<p style="font-size: x-small; margin: 0;">NO. _____</p> <p style="font-size: x-small; margin: 0;">REVISIONS _____</p> <p style="font-size: x-small; margin: 0;">DATE _____</p> <p style="font-size: x-small; margin: 0;">BY _____</p>
<h2 style="margin: 0;">LANDSCAPE PLAN</h2>	
<h3 style="margin: 0;">P1407- OLD HICKORY BLVD</h3> <p style="font-size: x-small; margin: 0;">ANTIOCH, TN</p>	
<p style="font-size: x-small; margin: 0;">SCALE: 1"=30'</p> <p style="font-size: x-small; margin: 0;">DESIGNED BY: NMS</p> <p style="font-size: x-small; margin: 0;">DRAWN BY: NMS</p> <p style="font-size: x-small; margin: 0;">CHECKED BY: ARE</p>	
<p style="font-size: x-small; margin: 0;">DATE: 7/30/2015</p> <p style="font-size: x-small; margin: 0;">PROJECT NO.: 148966010</p> <p style="font-size: x-small; margin: 0;">SHEET NUMBER</p>	
<h1 style="margin: 0;">L1-01</h1>	

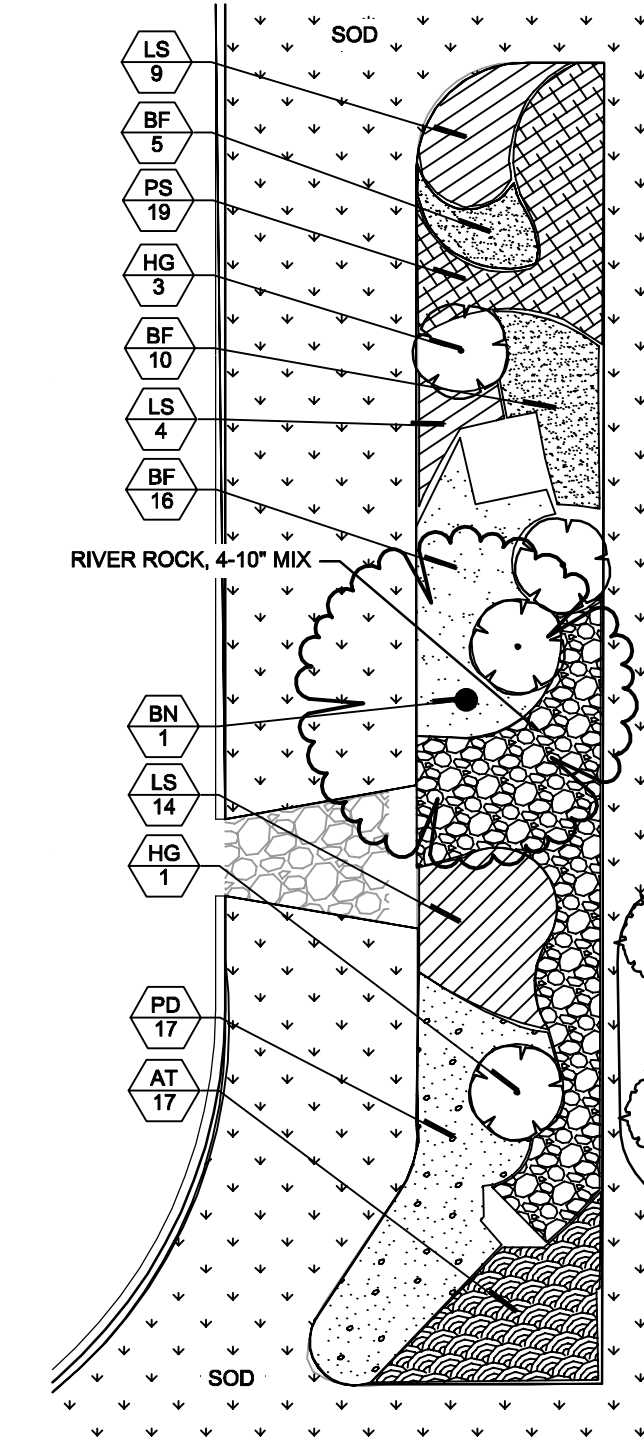
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1 BIORETENTION AREA 1
 1" = 10'
 TOTAL AREA: 5850 S.F.
 TREES REQUIRED: 14 (1 TREE PER 400 S.F.)
 TREES PROVIDED: 14



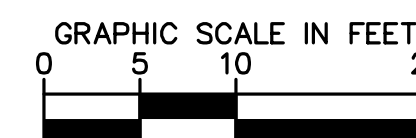
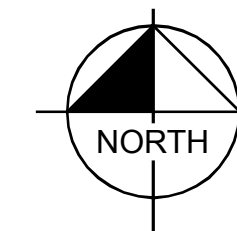
2 BIORETENTION AREA 2
 1" = 10'
 TOTAL AREA: 868 S.F.
 TREES REQUIRED: 2 (1 TREE PER 400 S.F.)
 TREES PROVIDED: 2



3 BIORETENTION AREA 3
 1" = 10'
 TOTAL AREA: 578 S.F.
 TREES REQUIRED: 1 (1 TREE PER 400 S.F.)
 TREES PROVIDED: 1

KEY

	BOTANICAL NAME	COMMON NAME
CANOPY TREES		
AR	ACER RUBRUM	RED MAPLE
GT	GLEDITSIA TRIACANTHOS INERMIS 'SUNBURST'	SUNBURST COMMON HONEYLOCUST
PV	PINUS VIRGINIANA	VIRGINIA PINE
ZS	ZELKOVA SERRATA	JAPANESE ZELKOVA
ORNAMENTAL TREES		
BN	BETULA NIGRA	RIVER BIRCH
CC	CARPINUS CAROLINIANA	AMERICAN HORNBEAM
MV	MAGNOLIA VIRGINIANA	SWEET BAY MAGNOLIA
SHRUBS		
DH	ILEX CRENATA 'COMPACTA'	DWARF JAPANESE HOLLY
SJ	ILEX CRENATA 'SOFT TOUCH'	SOFT TOUCH JAPANESE HOLLY
HG	ITEA VIRGINICA 'HENRY'S GARNET'	HENRY'S GARNET SWEETSPIRE
SG	JUNIPERUS CHINENSIS 'SEA GREEN'	SEA GREEN JUNIPER
JG	JUNIPERUS VIRGINIANA 'GREY OWL'	GREY OWL JUNIPER
GROUND COVERS		
Sod		SOD
PERENNIAL AREAS		
AT	ASCLEPIAS TUBEROSA	BUTTERFLY MILKWEED
PS	CAREX PENNSYLVANICA	PENNSYLVANIA SEDGE
SD	HEMEROCALLIS X 'STELLA DE ORO'	STELLA DE ORO DAYLILY
BF	IRIS VIRGINICA	BLUE FLAG IRIS
LS	LIATRIS SPICATA 'KOBOLD'	'KOBOLD' BLAZING STAR
ER	PARTIALLY SHADED AREA ROADSIDE MIX	ERNMX-140 (ERNST SEEDS)
PD	SPOROBOLUS HETEROLEPIS	PRAIRIE DROPSSEED



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 209 10TH AVENUE SOUTH, NASHVILLE, TN 37203
 PHONE: 615-564-2701
 WWW.KIMLEY-HORN.COM



SCALE: 1"=30'
 DESIGNED BY: NMS
 DRAWN BY: NMS
 CHECKED BY: ARE

LANDSCAPE PLAN

Thorntons
 P1407- OLD HICKORY BLVD
 ANTIPOCH, TN

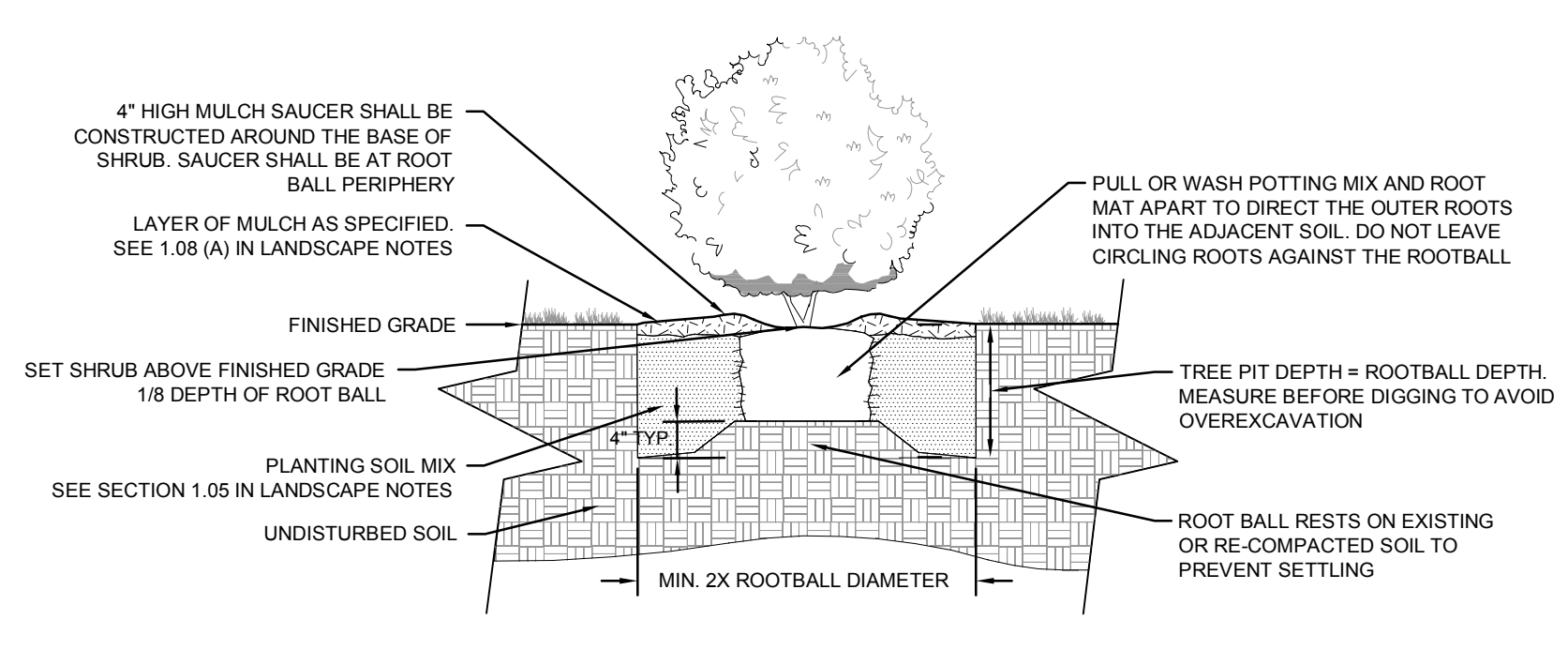
DATE: 7/30/2015
 PROJECT NO.: 148966010
 SHEET NUMBER

L1-02

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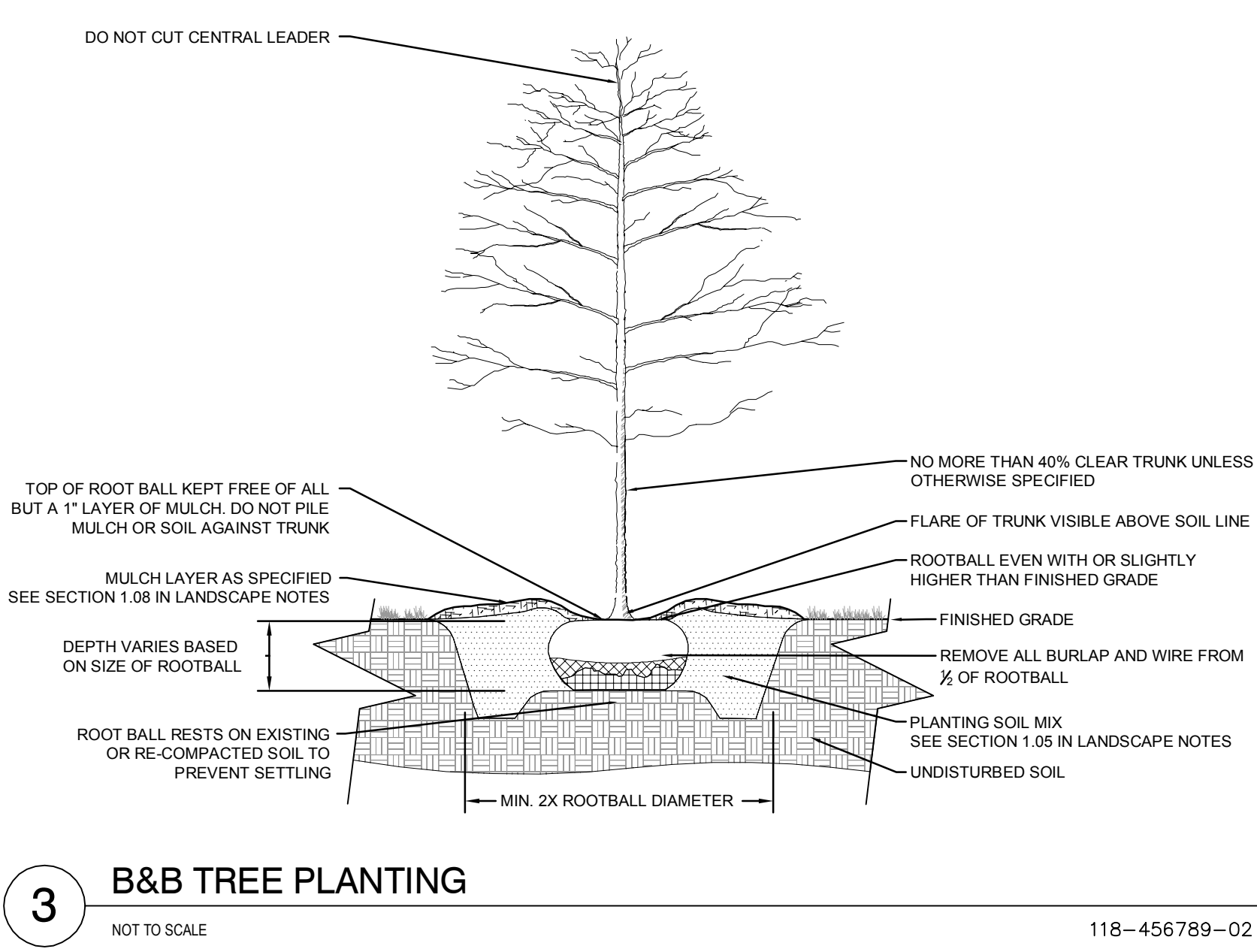
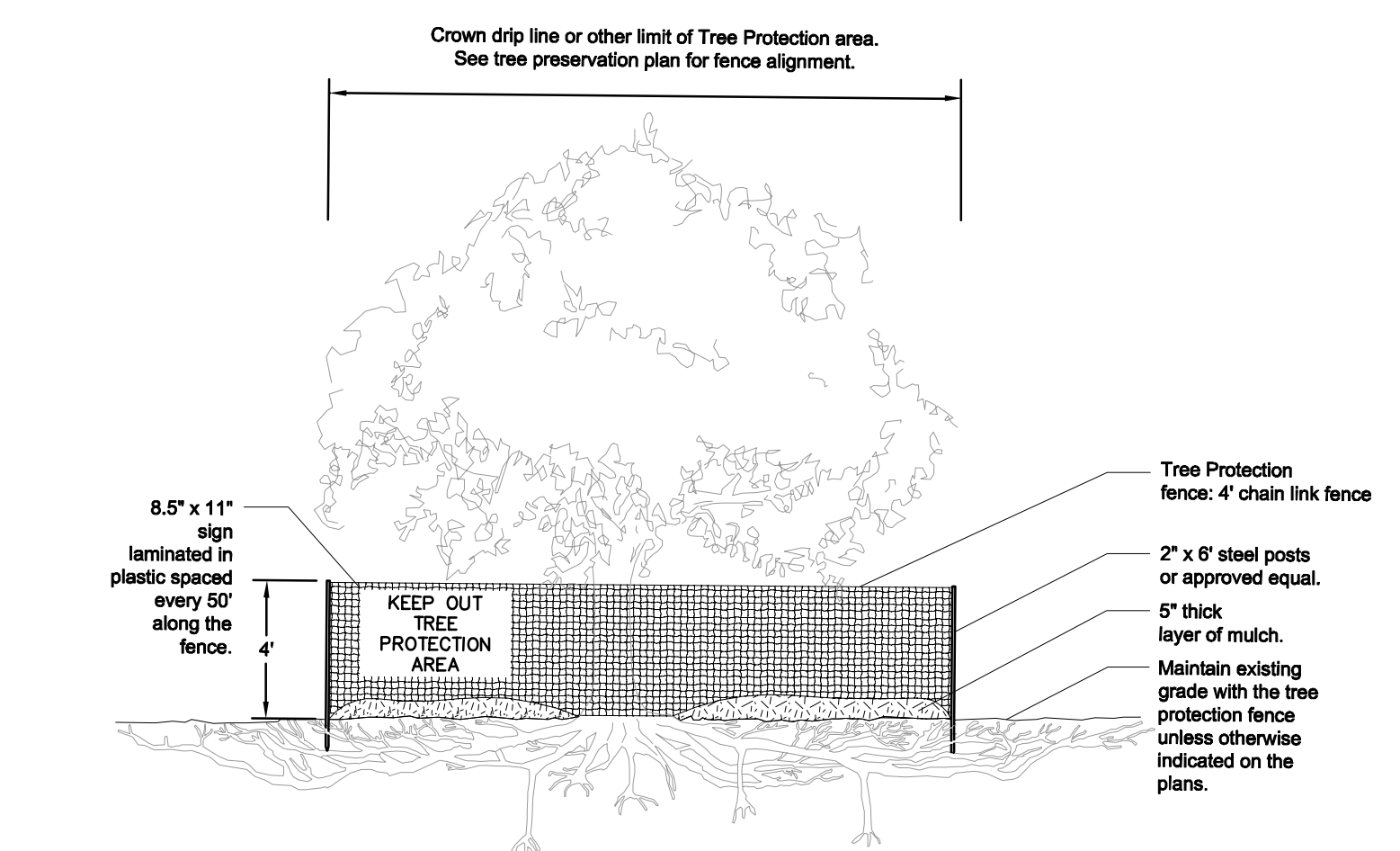
1 CONTAINER SHRUB PLANTING

NOT TO SCALE



2 TYPICAL TREE PROTECTION

NOT TO SCALE



3 B&B TREE PLANTING

NOT TO SCALE

PLANT SCHEDULE

CANOPY TREES	QTY	BOTANICAL NAME	COMMON NAME	SPACING	SIZE	ROOT	CONDITION	MATURE HEIGHT	MATURE SPREAD
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SJ	70	ILEX CRENATA 'SOFT TOUCH'	SOFT TOUCH JAPANESE HOLLY	2' O.C.	1' HT.	CONT.	MATCHED	2.5'	2.5'
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GROUND COVERS	QTY	BOTANICAL NAME	COMMON NAME	SPACING	SIZE	ROOT	CONDITION	MATURE HEIGHT	MATURE SPREAD
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PERENNIAL AREAS	QTY	BOTANICAL NAME	COMMON NAME	SPACING	SIZE	ROOT	CONDITION	MATURE HEIGHT	MATURE SPREAD
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PS	57	CAREX PENNSYLVANICA	PENNSYLVANIA SEDGE	24" O.C.	1 GAL.	CONT.		12"	12"
SD	27	HEMEROCALLIS X 'STELLA DE ORO'	STELLA DE ORO DAYLILY	24" O.C.	PINT	CONT.		12"	12"
BF	46	IRIS VIRGINICA	BLUE FLAG IRIS	24" O.C.	1 GAL.	CONT.		36"	24"
LS	48	LIATRIS SPICATA 'KOBOLD'	'KOBOLD' BLAZING STAR	24" O.C.	1 GAL.	CONT.		24"	12"
ER	5,851 SF	PARTIALLY SHADED AREA ROADSIDE MIX	ERNMX-140 (ERNST SEEDS)		1/2 POUND PER 1,000 S.F.	SEED		VARIES	VARIES
PD	36	SPOROBOLUS HETEROLEPIS	PRAIRIE DROPSEED	30" O.C.	1 GAL.	CONT.		24"	24"
MATERIALS	QTY								
	270 LF		ALUMINUM LANDSCAPE EDGING						

TREE DENSITY WORKSHEET

(Ordinance 94-1104)

Date: 07/10/2015
 Map: Parcel
 Application Number: 148966010
 Project Name: THORNTONS OHB
 Address: 148966010

- Acres (area of building site) = 2.75
- Minus building coverage area = 0.25
- Equals adjusted acreage = 2.50
- Multiplied by required density units per acre x 14 = 35
- Equals required tree density units for project = 35.0

PROTECTED TREES (existing trees 6" DBH or larger)
 DBH (diameter at 4 1/2')

DBH	# OF TREES	VALUE	UNITS	DBH	# OF TREES	VALUE	UNITS
6	1	1.2	1.2	20		4.3	4.3
8	1	1.4	1.4	22		4.9	4.9
10	1	1.6	1.6	24		5.7	5.7
12	1	1.8	1.8	26		6.6	6.6
14	1	2.1	2.1	28		7.5	7.5
16	2	2.4	4.8	30		8.4	8.4
18	3	2.8	8.4	32		9.4	9.4

REPLACEMENT TREE SCHEDULE
 UNITS represent basal Area CAL. represents caliper inches at planting

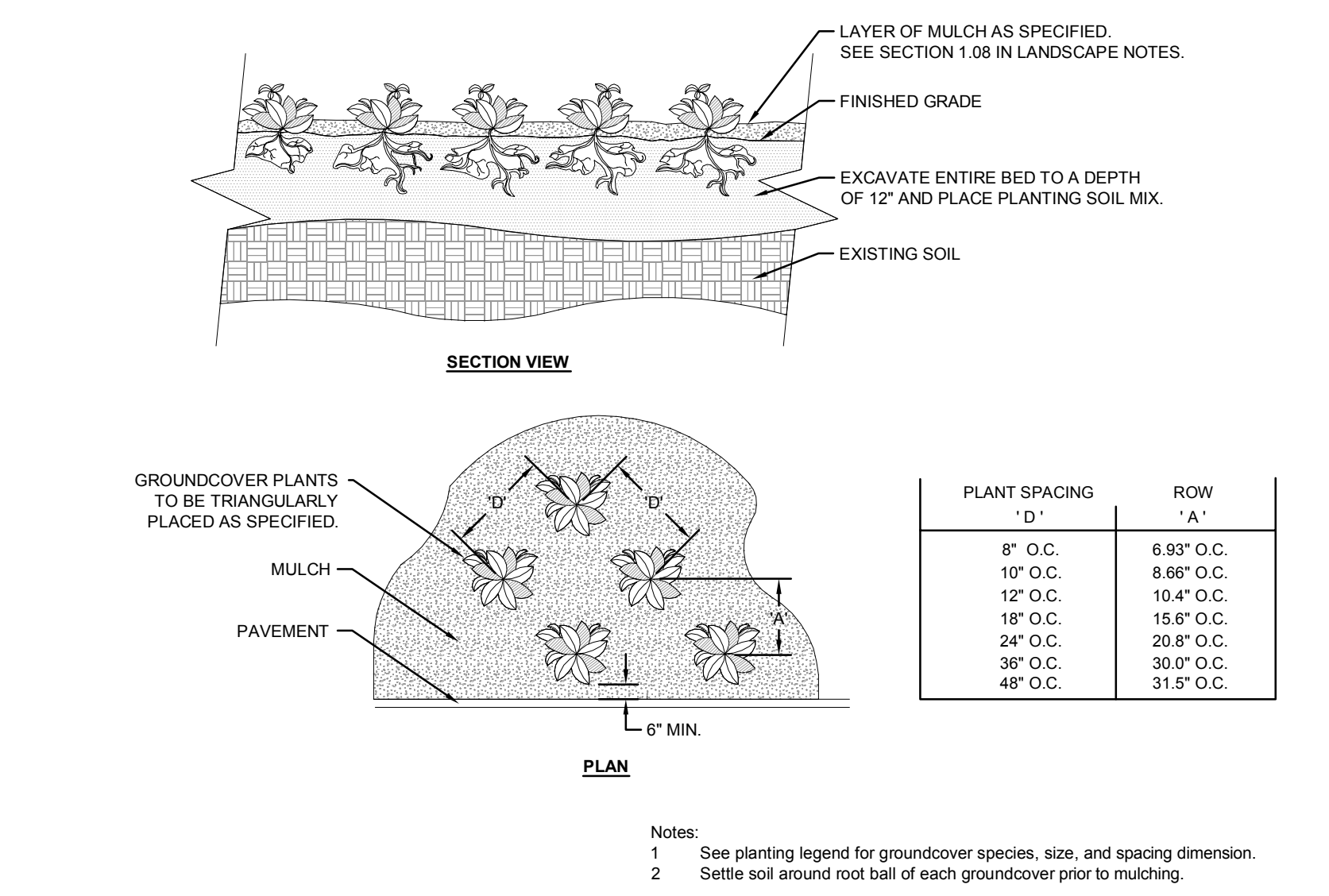
CAL	# OF TREES	VALUE	UNITS	CAL	# OF TREES	VALUE	UNITS
2	31	0.5	15.5	5		0.9	0.9
3	32	0.6	19.2	6		1.0	1.0
4		0.7		7		1.2	1.2

Density units provided on above schedules.
 Total density units for protected trees = 24
 Total density units for new trees = 34.7
 Total density units provided = 58.7

Note: The total density units provided must equal or exceed the requirements of #5 above. All protected and replacement trees must be shown on site plan.

4 GROUNDCOVER PLANTING

NOT TO SCALE



NO. DATE BY

REVISIONS

SCALE: 1"=30'

DESIGNED BY: NMS
 DRAWN BY: NMS
 CHECKED BY: ARE

LANDSCAPE DETAILS

THORNTONS
 P1407- OLD HICKORY BLVD
 ANTIPOCH, TN

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DATE
7/30/2015
 PROJECT NO.
148966010
 SHEET NUMBER
L1-50

