

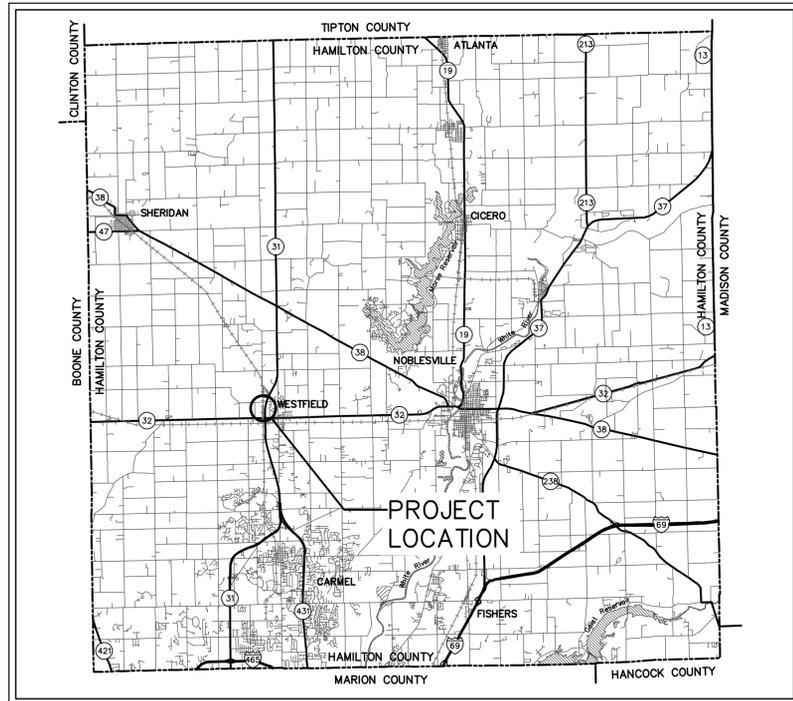
DEVELOPMENT PLANS

FOR

THIENEMAN CONSTRUCTION OFFICE BUILDING

17219 FOUNDATION PARKWAY

WESTFIELD, INDIANA 46074



LOCATION MAP
NOT TO SCALE



VICINITY MAP
NOT TO SCALE

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PLAN DATE: 10/31/2014

UTILITY CONTACTS			
UTILITY	COMPANY	CONTACT	PHONE NO.
GAS	CITIZENS GAS OF WESTFIELD	RICHARD MILLER	317-927-4684
ELECTRIC	DUKE ENERGY	TIM HARDIN	317-776-5327
TELEPHONE	VERIZON NETWORK SERVICES	STEVE COSTLOW	317-896-6005
WATER	CITIZENS WESTFIELD	HARRY NIKIDES	317-927-4338
SANITARY	CITIZENS WESTFIELD	MATT KLINE	317-429-3972
STORM	WESTFIELD PUBLIC WORKS	JOHN RANKIN	317-804-3147
OIL PIPELINE	MARATHON PIPELINE	AUSTIN GUYER	317-291-9460

PLANS PREPARED FOR:



17241 Foundation Parkway | Suite 100
Westfield, Indiana 46074
TEL 317.867.3462 | FAX 317.867.3463
www.thienemanconstruction.com

PLANS PREPARED BY:



7260 SHADELAND STATION
INDIANAPOLIS, IN 46256-3957
TEL 317.547.5580 FAX 317.543.0270
www.structurepoint.com

DEVELOPMENT SCHEDULE:

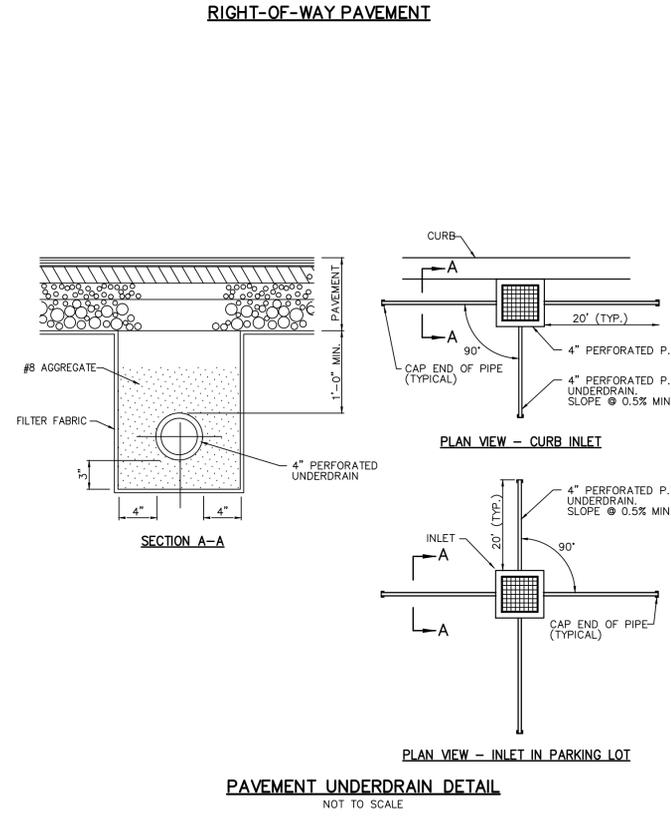
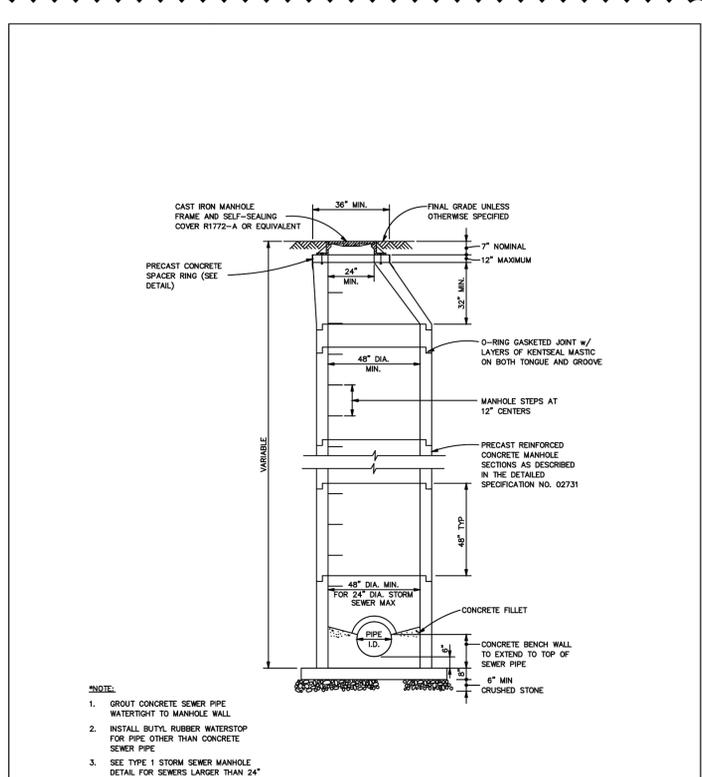
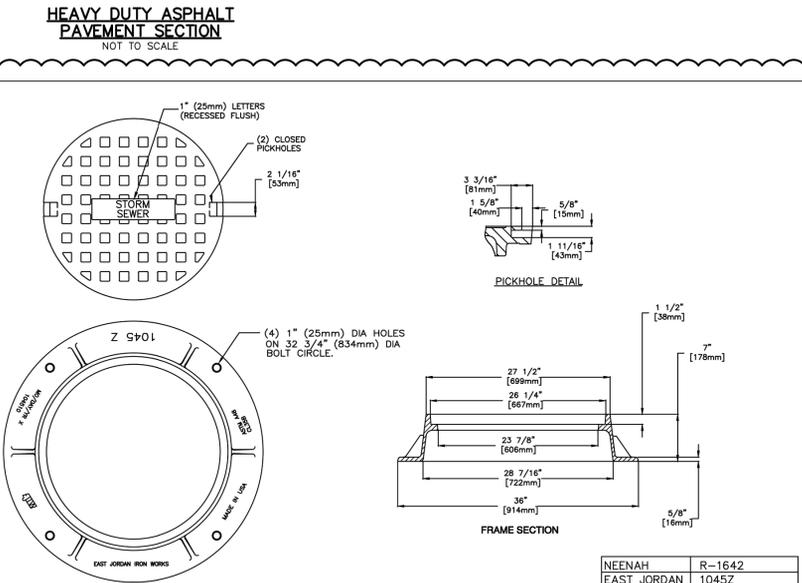
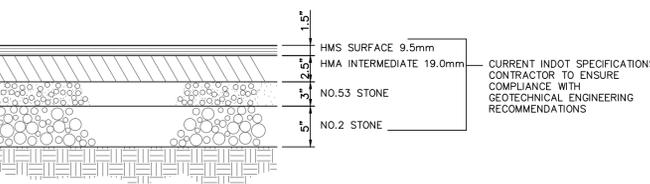
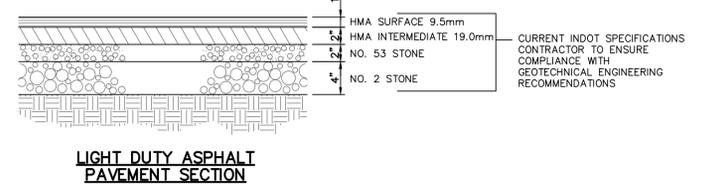
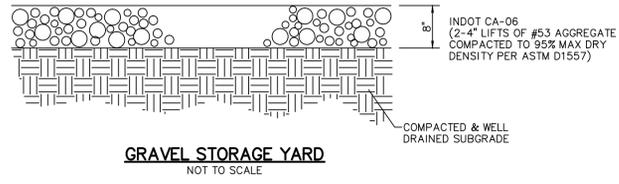
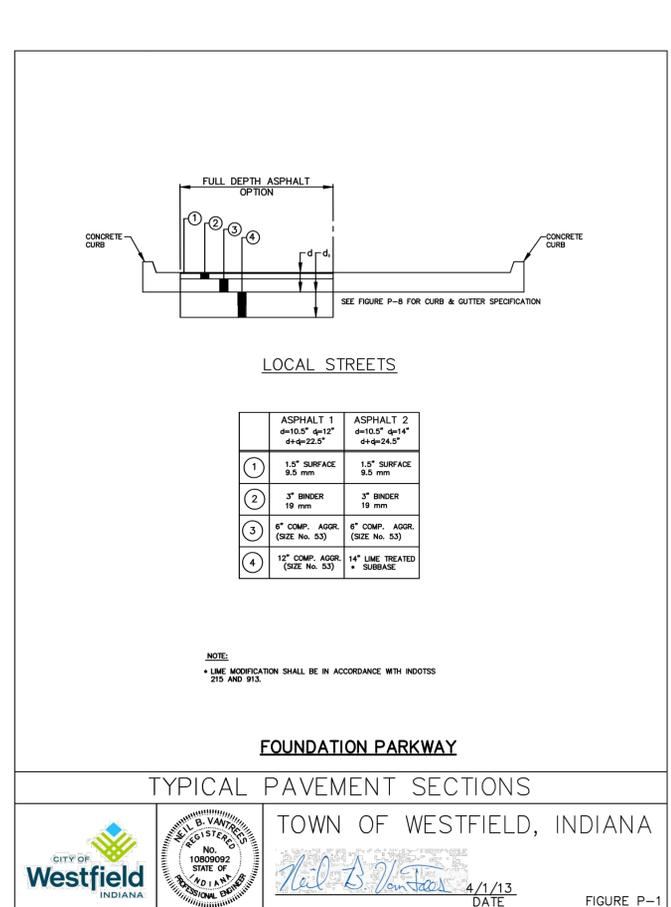
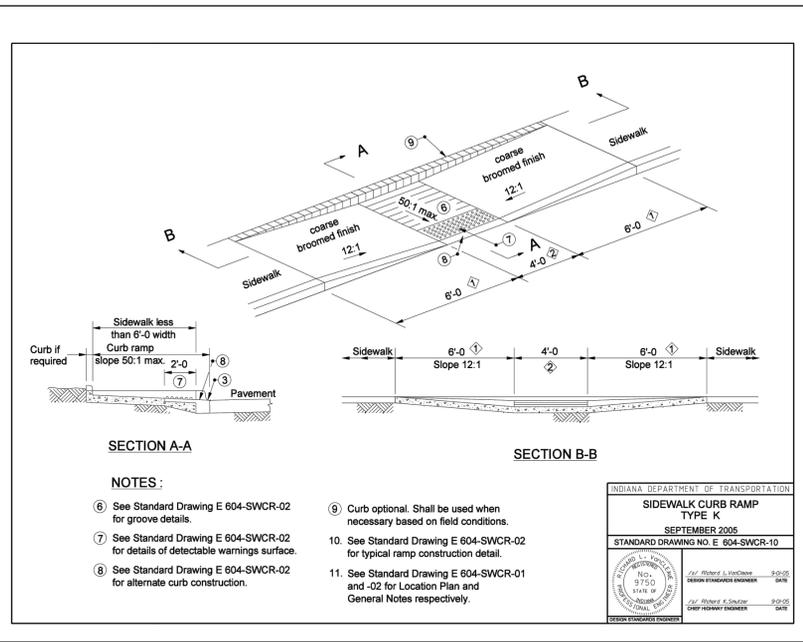
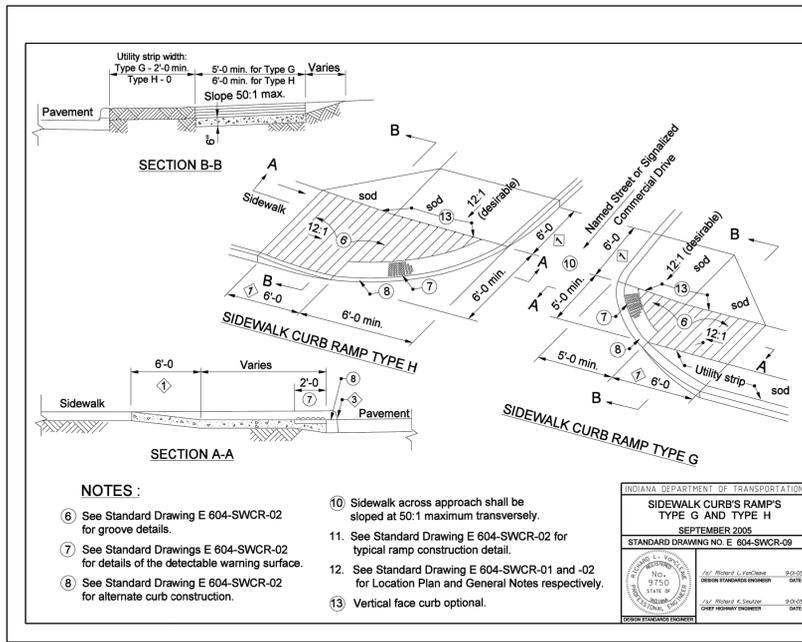
BEGIN CONSTRUCTION:	FEBRUARY 2015
END CONSTRUCTION:	FEBRUARY 2016

REV	DATE	DESCRIPTION
1	12/05/14	TAC COMMENTS



David K. Kuehmen
DAVID K. KUEHMEN, PE

C001
JOB# 2014.02154



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Thieneman
Construction Office
Building

17219 FOUNDATION
PKWY.
WESTFIELD, INDIANA

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NOT FOR CONSTRUCTION

REGISTERED
No. PE1101261
STATE OF INDIANA
Professional Engineer

CERTIFIED BY

ISSUANCE INDEX		
DATE:	10/31/2014	
PROJECT PHASE:	DEVELOPMENT PLANS	

REVISION SCHEDULE		
NO.	DESCRIPTION	DATE
Δ	TAC COMMENTS	12/5/14

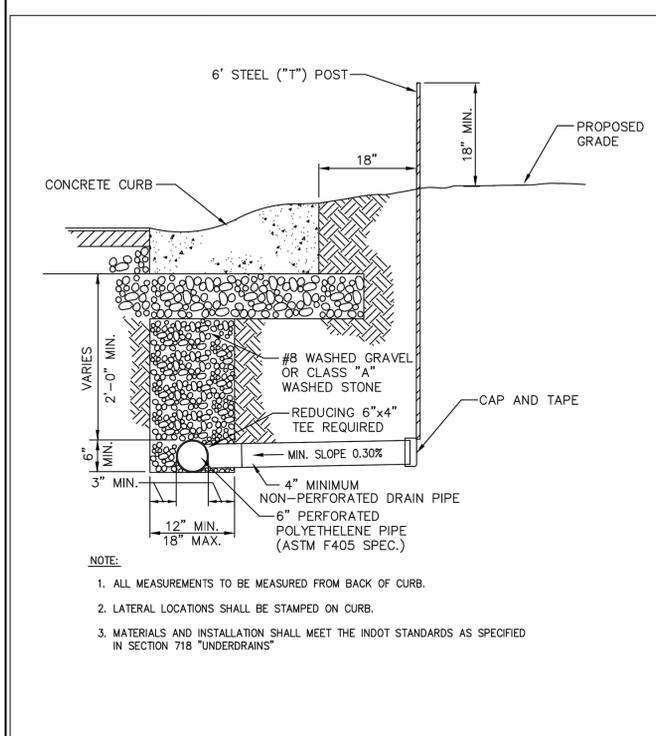
Project Number 2014.02154

SITE DETAILS

C602

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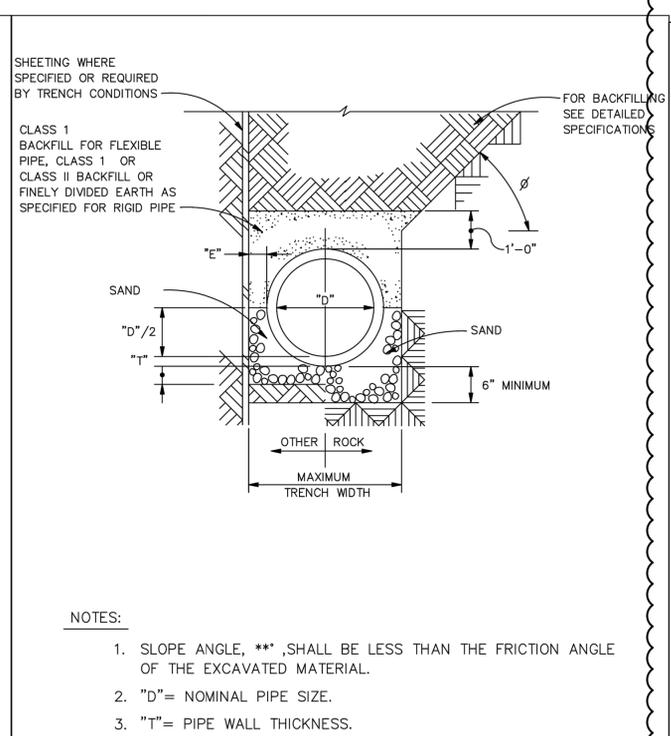
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- NOTE:
1. ALL MEASUREMENTS TO BE MEASURED FROM BACK OF CURB.
 2. LATERAL LOCATIONS SHALL BE STAMPED ON CURB.
 3. MATERIALS AND INSTALLATION SHALL MEET THE INDOT STANDARDS AS SPECIFIED IN SECTION 718 "UNDERDRAINS"

UNDERDRAIN DETAIL
CITY OF WESTFIELD, INDIANA

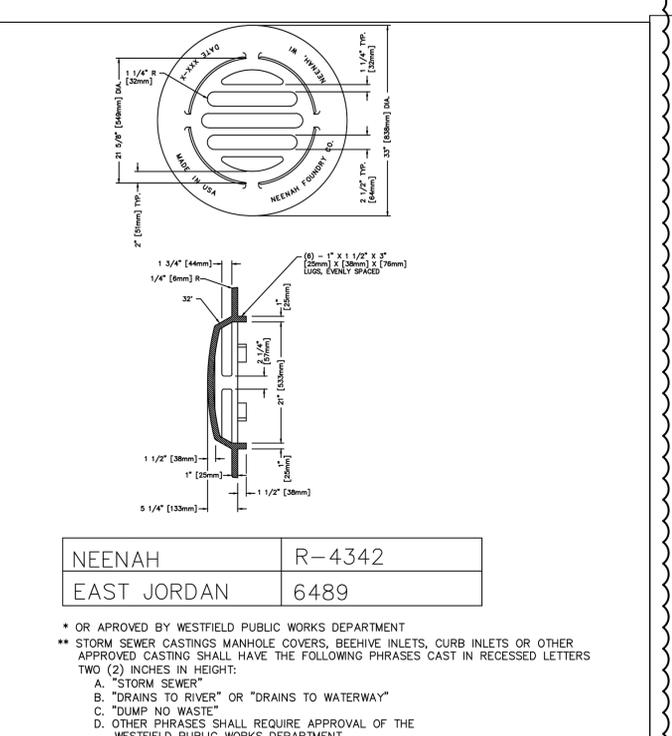
CITY OF Westfield INDIANA
NEIL B. VANFRIES REGISTERED PROFESSIONAL ENGINEER
No. 10809092 STATE OF INDIANA
DATE: 4/1/13
FIGURE P-9



- NOTES:
1. SLOPE ANGLE, **, SHALL BE LESS THAN THE FRICTION ANGLE OF THE EXCAVATED MATERIAL.
 2. "D" = NOMINAL PIPE SIZE.
 3. "T" = PIPE WALL THICKNESS.

PVC BEDDING DETAIL
CITY OF WESTFIELD, INDIANA

CITY OF Westfield INDIANA
NEIL B. VANFRIES REGISTERED PROFESSIONAL ENGINEER
No. 10809092 STATE OF INDIANA
DATE: 4/1/13
FIGURE W-4

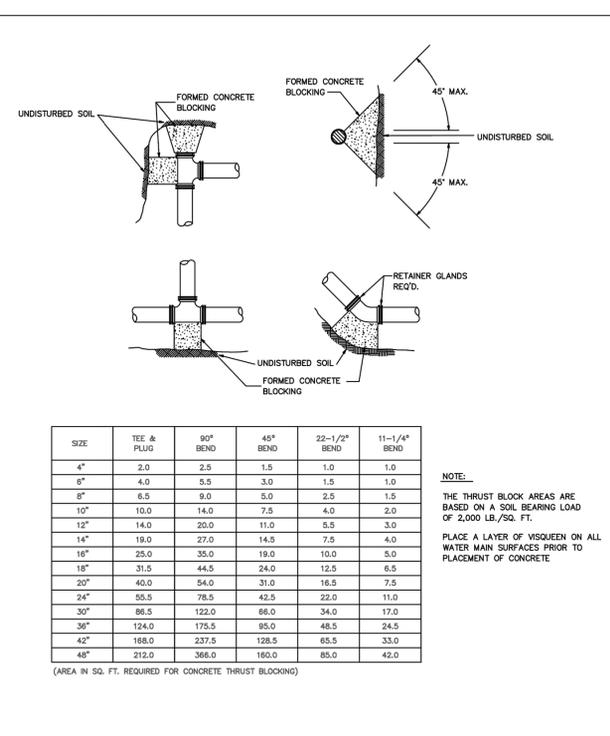


NEENAH	R-4342
EAST JORDAN	6489

- * OR APPROVED BY WESTFIELD PUBLIC WORKS DEPARTMENT
** STORM SEWER CASTINGS MANHOLE COVERS, BEEHIVE INLETS, CURB INLETS OR OTHER APPROVED CASTING SHALL HAVE THE FOLLOWING PHRASES CAST IN RECESSED LETTERS TWO (2) INCHES IN HEIGHT:
A. "STORM SEWER"
B. "DRAINS TO RIVER" OR "DRAINS TO WATERWAY"
C. "DUMP NO WASTE"
D. OTHER PHRASES SHALL REQUIRE APPROVAL OF THE WESTFIELD PUBLIC WORKS DEPARTMENT.

BEEHIVE CURB INLET CASTING
CITY OF WESTFIELD, INDIANA

CITY OF Westfield INDIANA
NEIL B. VANFRIES REGISTERED PROFESSIONAL ENGINEER
No. 10809092 STATE OF INDIANA
DATE: 4/1/13
FIGURE ST-10



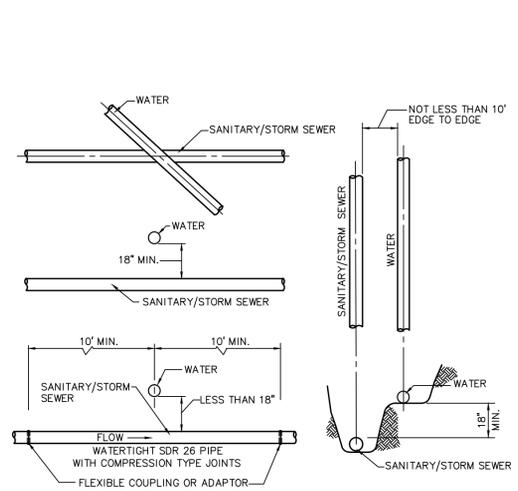
SIZE	TEE & PLUG	90° BEND	45° BEND	22-1/2° BEND	11-1/4° BEND
4"	2.0	2.5	1.5	1.0	1.0
6"	4.0	5.5	3.0	1.5	1.0
8"	6.5	9.0	5.0	2.5	1.5
10"	10.0	14.0	7.5	4.0	2.0
12"	14.0	20.0	11.0	5.5	3.0
14"	19.0	27.0	14.5	7.5	4.0
16"	25.0	35.0	19.0	10.0	5.0
18"	31.5	44.5	24.0	12.5	6.5
20"	40.0	54.0	31.0	16.5	7.5
24"	55.5	78.5	42.5	22.0	11.0
30"	86.5	122.0	66.0	34.0	17.0
36"	124.0	175.5	95.0	48.5	24.5
42"	168.0	237.5	128.5	65.5	33.0
48"	212.0	306.0	160.0	85.0	42.0

(AREA IN SQ. FT. REQUIRED FOR CONCRETE THRUST BLOCKING)

NOTE:
THE THRUST BLOCK AREAS ARE BASED ON A SOIL BEARING LOAD OF 2,000 LB./SQ. FT.
PLACE A LAYER OF VISQUEEN ON ALL WATER MAIN SURFACES PRIOR TO PLACEMENT OF CONCRETE

TRUST BLOCK DETAIL
CITY OF WESTFIELD, INDIANA

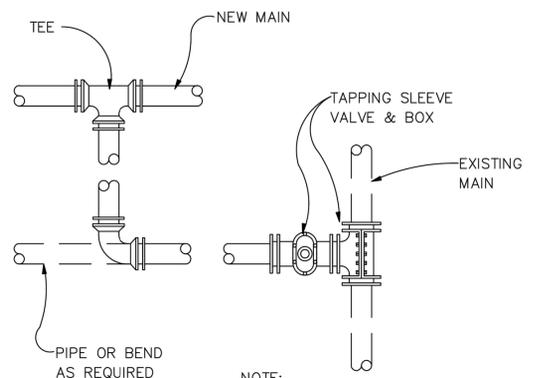
CITY OF Westfield INDIANA
NEIL B. VANFRIES REGISTERED PROFESSIONAL ENGINEER
No. 10809092 STATE OF INDIANA
DATE: 4/1/13
FIGURE W-10



- NOTES:
1. WHEN LATERAL SEPARATION IS 10' OR GREATER NO VERTICAL CLEARANCE IS NEEDED
 2. ALL CROSSINGS AND SEPARATIONS TO BE 327 IAC, ARTICLES 3 & 8
 3. WHEN HORIZONTAL SEPARATION IS LESS THAN 10' OR VERTICAL SEPARATION IS LESS THAN 18", SANITARY PIPE MUST BE WATERTIGHT SDR 26 WITH COMPRESSION TYPE JOINTS.
 4. CONTRACTOR SHALL VERIFY THAT MORE STRINGENT SEPARATION REQUIREMENTS DO NOT EXIST WITH THE JURISDICTIONAL WATER UTILITY. IF THEY DO EXIST, CONTRACTOR SHALL FOLLOW THE MORE STRINGENT REQUIREMENTS.

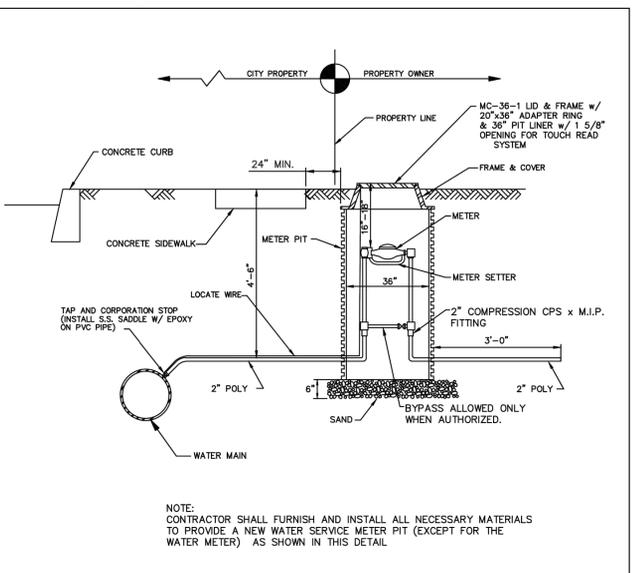
MIN. CROSSOVER & SEPARATION REQUIREMENTS FOR WATER & SANITARY/STORM SEWERS
NOT TO SCALE

CITY OF Westfield INDIANA
NEIL B. VANFRIES REGISTERED PROFESSIONAL ENGINEER
No. 10809092 STATE OF INDIANA
DATE: 4/1/13
FIGURE W-5



CONNECTION TO EXISTING MAIN
CITY OF WESTFIELD, INDIANA

CITY OF Westfield INDIANA
NEIL B. VANFRIES REGISTERED PROFESSIONAL ENGINEER
No. 10809092 STATE OF INDIANA
DATE: 4/1/13
FIGURE W-5



ITEMS SUPPLIED & INSTALLED BY CONTRACTOR	PART NUMBERS			
	MUELLER CO.	FORD METER BOX CO.	A.Y. McDONALD MFG. CO.	VESTAL
METER SETTER	B-2427-2	VBH87-188-11-77	730-715-WD-F7-770	
2" COMPRESSION COUPLING	H-15428-2		47530/T	
ADAPTER RING	20" x 36"	20" x 36"	20" x 36"	20" x 36"
COVER		MC-36-1		MC-36-1

2" - WATER METER AND PIT DETAIL
CITY OF WESTFIELD, INDIANA

CITY OF Westfield INDIANA
NEIL B. VANFRIES REGISTERED PROFESSIONAL ENGINEER
No. 10809092 STATE OF INDIANA
DATE: 4/1/14
FIGURE W-10

THIENEMAN CONSTRUCTION, INC.
17241 Foundation Parkway | Suite 100
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www.structurepoint.com

Thieneman Construction Office Building

17219 FOUNDATION PKWY.
WESTFIELD, INDIANA

APPROVAL PENDING
NOT FOR CONSTRUCTION

REGISTERED PROFESSIONAL ENGINEER
No. PE1101261
STATE OF INDIANA
DAVID KARL RUEHLER
CERTIFIED BY

ISSUANCE INDEX

DATE:	10/31/2014
PROJECT PHASE:	DEVELOPMENT PLANS

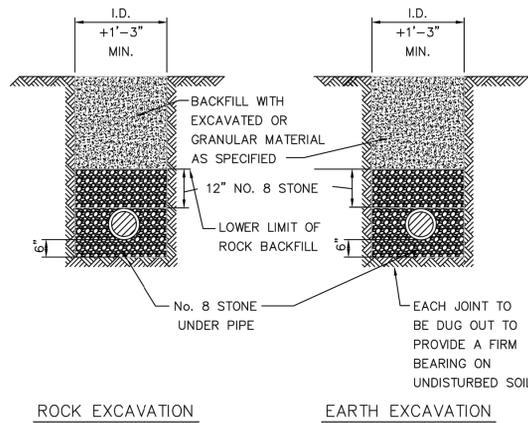
REVISION SCHEDULE

NO.	DESCRIPTION	DATE
Δ	TAC COMMENTS	12/5/14

Project Number 2014.02154

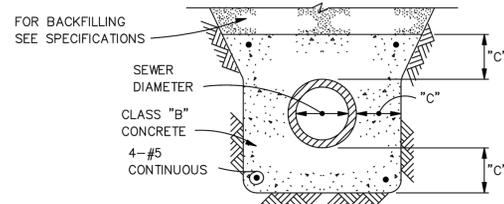
SITE DETAILS

C603



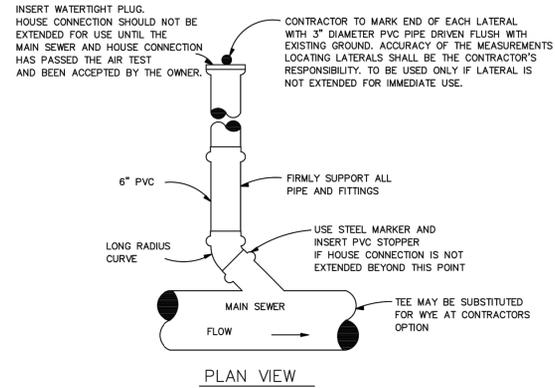
NOTES:
THIS DETAIL SHALL APPLY TO ALL SANITARY SEWER PIPE
ALL STONE TO BE INDOT CLASS 1 STONE

SEWER PIPE BEDDING DETAIL



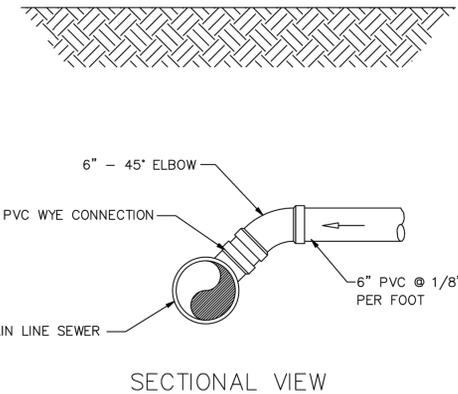
NOTE:
"C" = 6" MINIMUM
OR AS INDICATED
ON THE PLANS.

CONCRETE ENCASEMENT DETAIL



- NOTES:
1. WYE BRANCHES OR TEES SHALL BE INSTALLED WHERE INDICATED ON THE DRAWINGS. THEY SHALL BE EXTENDED TO PROPERTY LINE OF STREETS OR ALLEYS OR TO DISTANCES AS SHOWN ON THE DESIGN DRAWINGS AND SHALL BE OF 6" PVC SDR 35 UNLESS OTHERWISE SHOWN.
 2. DEPTH AT PROPERTY LINE SHALL BE APPROXIMATELY 8'-0" UNLESS SEWER DEPTH IS LESS, IN WHICH EVENT A MINIMUM SLOPE OF 1/8" PER 1'-0" SHALL BE USED.
 3. HOUSE SERVICE PIPE SHALL BE PVC SDR 35 CONFORMING TO ASTM D3034 WITH GASKETED JOINTS CONFORMING TO ASTM D3212 UNLESS OTHERWISE INDICATED.
 4. HOUSE SERVICE PIPE SHALL BE INSTALLED PER SAME SPECIFICATIONS & DETAIL AS FOR MAIN LINE SEWER.

HOUSE/BUILDING SERVICE CONNECTION DETAIL 1



HOUSE/BUILDING SERVICE CONNECTION DETAIL 2



CITY OF WESTFIELD, INDIANA
4/1/13 DATE
FIGURE S-5



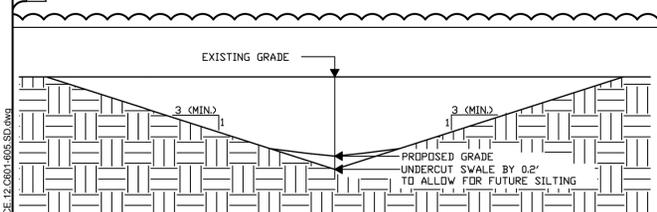
CITY OF WESTFIELD, INDIANA
4/1/13 DATE
FIGURE S-6



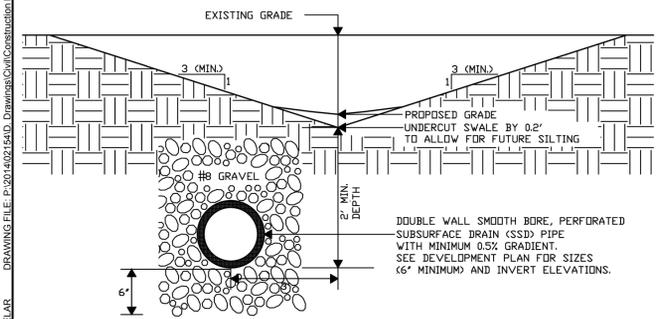
CITY OF WESTFIELD, INDIANA
4/1/13 DATE
FIGURE S-10



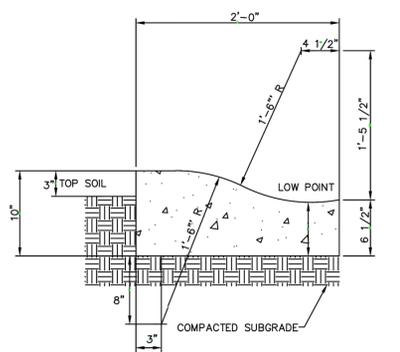
CITY OF WESTFIELD, INDIANA
4/1/13 DATE
FIGURE S-1



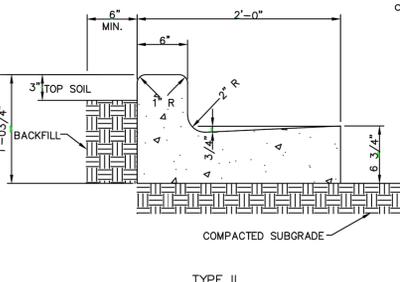
UNDERDRAINS REQUIRED IN SWALES WITH SLOPE BETWEEN 1% & 2% GRADIENT



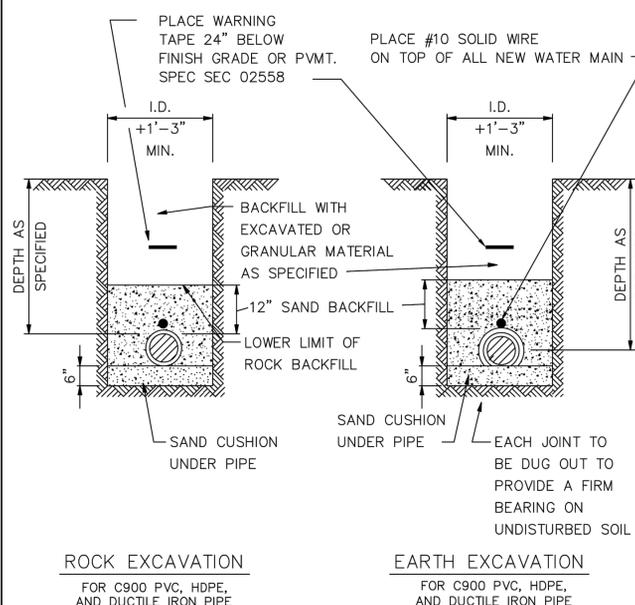
MINIMUM CHANNEL SLOPE 1% GRADIENT



*NOTE - No backfilling, paving, or compaction may be done until 72 hours after the placement of the concrete.

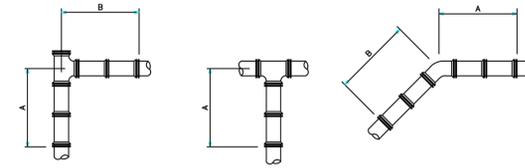


CONCRETE CURB AND GUTTER TYPE I & II



NOTE:
HDPE (D11) PIPE DOES NOT REQUIRE SPECIAL BACKFILL UNLESS DIRECTED ON THE PLANS OR REQUIRED BY THE DIRECTOR OR THEIR DESIGNEE.

WATER MAIN INSTALLATION DETAIL



NOTE:
THE LENGTHS OF PIPE WITH RESTRAINED JOINTS ARE BASED ON A COMPACTED SILTY SOIL SURROUNDING THE PIPE

SIZE	A	B	90° BEND	45° BEND	22-1/2° BEND	11-1/4° BEND
6"	12'-0"	17'-0"	10'-0"	8'-0"	3'-0"	3'-0"
8"	16'-0"	22'-0"	13'-0"	8'-0"	4'-0"	4'-0"
10"	18'-0"	27'-0"	16'-0"	9'-0"	5'-0"	5'-0"
12"	23'-0"	32'-0"	19'-0"	11'-0"	6'-0"	6'-0"
14"	26'-0"	36'-0"	21'-0"	12'-0"	7'-0"	7'-0"
16"	28'-0"	41'-0"	24'-0"	14'-0"	8'-0"	8'-0"
18"	32'-0"	45'-0"	26'-0"	15'-0"	8'-0"	8'-0"
20"	35'-0"	50'-0"	29'-0"	16'-0"	9'-0"	9'-0"
24"	41'-0"	58'-0"	34'-0"	19'-0"	10'-0"	10'-0"
30"	50'-0"	70'-0"	40'-0"	22'-0"	12'-0"	12'-0"
36"	58'-0"	82'-0"	46'-0"	26'-0"	14'-0"	14'-0"
42"	66'-0"	93'-0"	52'-0"	29'-0"	15'-0"	15'-0"

(LENGTH IN FEET REQUIRED FOR RESTRAINING JOINTS)

RESTRAINED JOINT DETAILS



CITY OF WESTFIELD, INDIANA
4/1/13 DATE
FIGURE ST-43



CITY OF WESTFIELD, INDIANA
4/1/14 DATE
FIGURE P-8



CITY OF WESTFIELD, INDIANA
4/1/14 DATE
FIGURE W-1



CITY OF WESTFIELD, INDIANA
4/1/13 DATE
FIGURE W-3



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ISSUANCE INDEX

DATE:
10/31/2014
PROJECT PHASE:
DEVELOPMENT PLANS

REVISION SCHEDULE

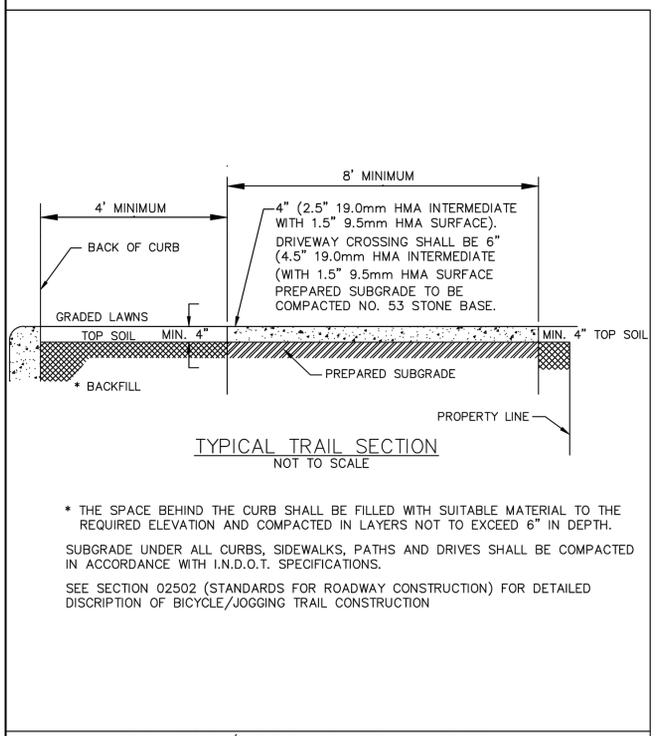
NO.	DESCRIPTION	DATE
Δ	TAC COMMENTS	12/5/14

Project Number 2014.02154

SITE DETAILS

C604

PLOT DATE: 12/2/2014 7:06 AM
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 DATE: 12/2/2014



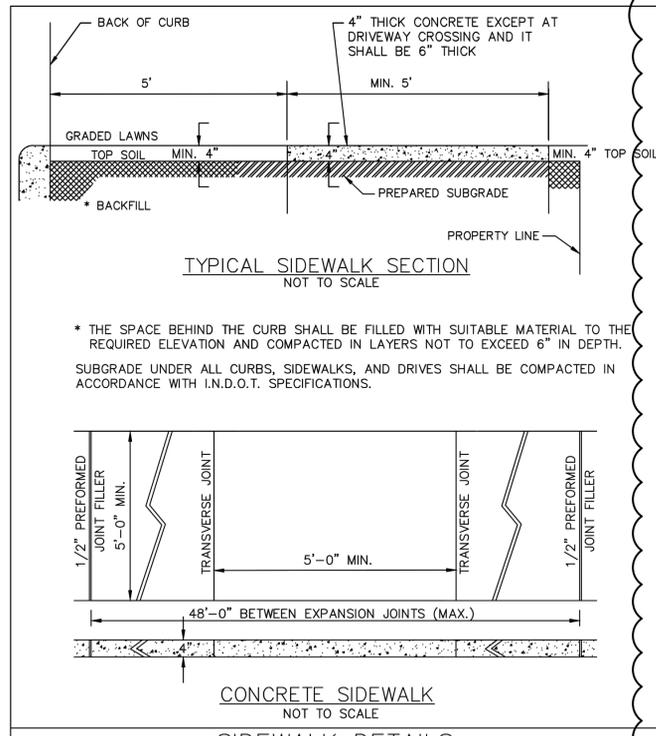
TYPICAL TRAIL SECTION
NOT TO SCALE

* THE SPACE BEHIND THE CURB SHALL BE FILLED WITH SUITABLE MATERIAL TO THE REQUIRED ELEVATION AND COMPACTED IN LAYERS NOT TO EXCEED 6" IN DEPTH.

SUBGRADE UNDER ALL CURBS, SIDEWALKS, PATHS AND DRIVES SHALL BE COMPACTED IN ACCORDANCE WITH I.N.D.O.T. SPECIFICATIONS.

SEE SECTION 02502 (STANDARDS FOR ROADWAY CONSTRUCTION) FOR DETAILED DISCRPTION OF BICYCLE/JOGGING TRAIL CONSTRUCTION

CITY OF WESTFIELD, INDIANA
 No. 10809022
 STATE OF INDIANA
 PROFESSIONAL ENGINEER
 Neil B. VanTass
 4/1/14
 DATE
 FIGURE P-16



TYPICAL SIDEWALK SECTION
NOT TO SCALE

* THE SPACE BEHIND THE CURB SHALL BE FILLED WITH SUITABLE MATERIAL TO THE REQUIRED ELEVATION AND COMPACTED IN LAYERS NOT TO EXCEED 6" IN DEPTH.

SUBGRADE UNDER ALL CURBS, SIDEWALKS, AND DRIVES SHALL BE COMPACTED IN ACCORDANCE WITH I.N.D.O.T. SPECIFICATIONS.

CITY OF WESTFIELD, INDIANA
 No. 10809022
 STATE OF INDIANA
 PROFESSIONAL ENGINEER
 Neil B. VanTass
 4/1/13
 DATE
 FIGURE P-10

High Intensity, Prismatic Reflective Sheeting
 INDOT Standard Specifications (2014)
 Section 913 Miscellaneous. 919.01 (3a) Traffic signs reflective Sheeting, Encapsulated Lens.
 MATERIAL: Traffic Signs fabricated from 3-M (or other INDOT approved) reflective sheeting, High Intensity, Prismatic ASTM Type IV on aluminum backing

3930 - White (INDOT approval #W088801)	3931 - Yellow (INDOT approval #W088802)
3932 - Red (INDOT approval #W088803)	3934 - Orange (INDOT approval #W058802)
3935 - Blue (INDOT approval #W088804)	3937 - Green (INDOT approval #W058805)
3939 - Brown (INDOT approval #W128801)	

Diamond Grade Reflective Sheeting
 INDOT Standard Specifications (2014)
 Section 919 - Traffic Signs: 919.01 (3a) Traffic signs reflective Sheeting, Encapsulated Lens
 MATERIAL: Traffic Signs fabricated from 3-M (or other INDOT approved) reflective sheeting, Diamond grade ASTM Type IX on aluminum backing

4084 - Fluorescent Orange (INDOT Approval # W088893)	4090 - White (INDOT Approval # W088890)
4091 - Yellow (INDOT Approval # W088891)	4092 - Red (INDOT Approval # W088892)
4095 - Blue (INDOT Approval # W088893)	4096 - Worboy Green (INDOT Approval #W088894)
4097 - Green (INDOT Approval # W088895)	

MATERIAL: Traffic Signs fabricated from 3-M reflective sheeting, Diamond grade ASTM Type XI on aluminum backing

4081 - Fluorescent Yellow (INDOT Approval # W088896)	4083 - Fluorescent Yellow/Green (INDOT Approval # W088897)
--	--

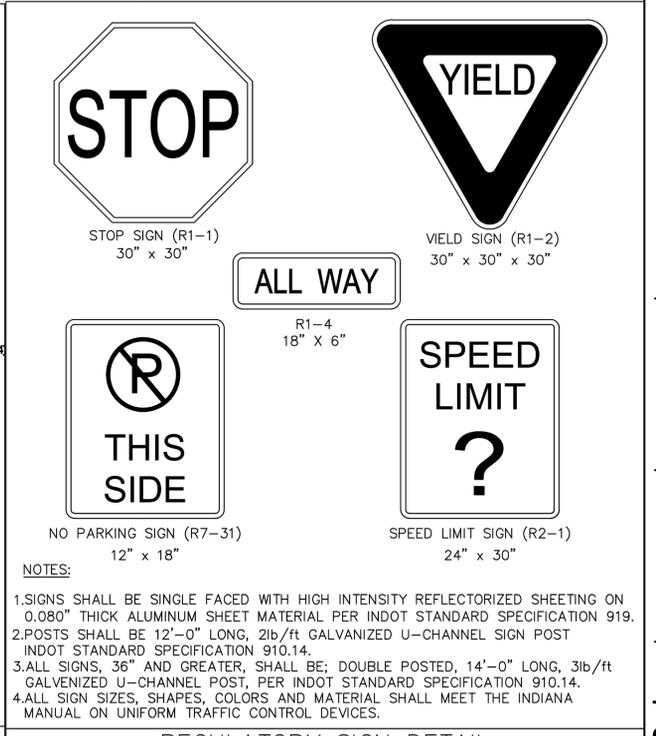
Aluminum Backing Material
 INDOT Standard Specifications (2014)
 Section 919 - Street Signs: 919.01 (a) Traffic Signs Sheet Signs

GENERAL STREET NAME SIGN NOTES

- IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE FINAL STREET SIGN LEGEND AND BACKGROUND COLOR WITH THE CITY BEFORE ORDERING AND INSTALLING STREET NAME SIGNS.
- STREET NAME SIGNS WILL MEET THE MINIMUM STANDARDS SPECIFIED IN THE INDIANA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND THE FEDERAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES UNLESS OTHERWISE STATED.
- ALUMINUM BACKING MATERIAL WILL COMPLY WITH INDOT STANDARD SPECIFICATIONS (2014) SECTION 919 - STREET SIGNS: 919.01 (a) TRAFFIC SIGNS SHEET SIGNS.
- INSTALL GROUND-MOUNTED SIGNS PER STANDARD DWG RD-35 AND OVERHEAD SIGNS PER INDOT STANDARD DWGS.
- LONGER SIGN LENGTHS WILL REQUIRE SPECIAL SIGN SUPPORTS AND APPROVAL BY THE CITY ENGINEER

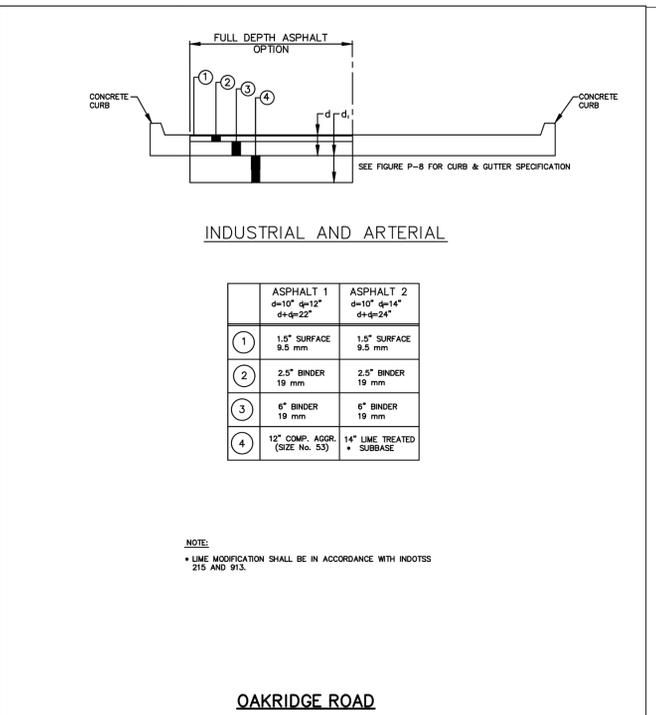
STREET SIGN MATERIAL DETAIL

CITY OF WESTFIELD, INDIANA
 No. 10809022
 STATE OF INDIANA
 PROFESSIONAL ENGINEER
 Neil B. VanTass
 4/1/13
 DATE
 FIGURE P-15c



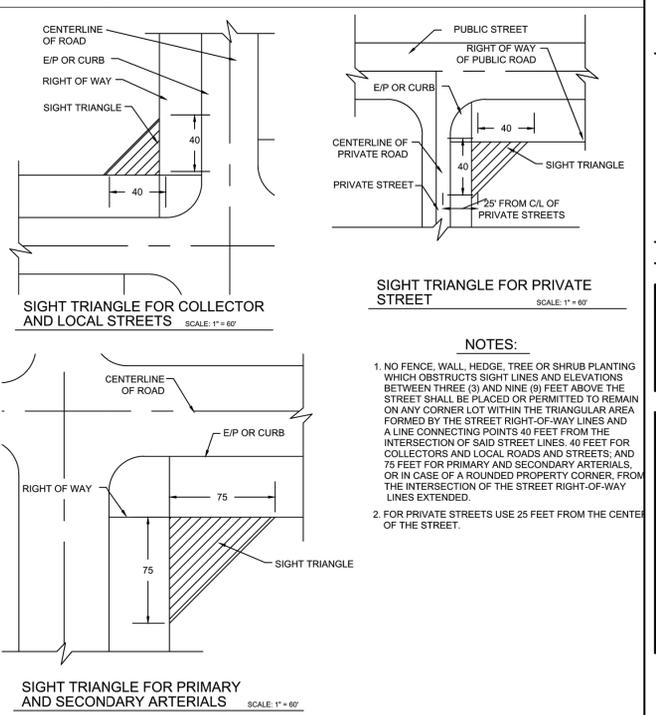
REGULATORY SIGN DETAIL

CITY OF WESTFIELD, INDIANA
 No. 10809022
 STATE OF INDIANA
 PROFESSIONAL ENGINEER
 Neil B. VanTass
 4/1/13
 DATE
 FIGURE P-15d



TYPICAL PAVEMENT SECTIONS

CITY OF WESTFIELD, INDIANA
 No. 10809022
 STATE OF INDIANA
 PROFESSIONAL ENGINEER
 Neil B. VanTass
 4/1/13
 DATE
 FIGURE P-3



SIGHT TRIANGLE DETAILS

CITY OF WESTFIELD, INDIANA
 No. 10809022
 STATE OF INDIANA
 PROFESSIONAL ENGINEER
 Neil B. VanTass
 4/1/14
 DATE
 FIGURE G-16

THIENEMAN
CONSTRUCTION, INC.

17241 Foundation Parkway | Suite 100
Westfield, Indiana 46074
TEL 317.867.3462 | FAX 317.867.3463
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7260 Shadeland Station | Indianapolis, Indiana 46256
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www.structurepoint.com

Thieneman
Construction Office
Building

17219 FOUNDATION
PKWY.
WESTFIELD, INDIANA

APPROVAL PENDING
NOT FOR CONSTRUCTION

REGISTERED PROFESSIONAL ENGINEER
 No. PE1101261
 STATE OF INDIANA
 David Karl Ruehl

CERTIFIED BY

ISSUANCE INDEX

DATE:	10/31/2014
PROJECT PHASE:	DEVELOPMENT PLANS

REVISION SCHEDULE

NO.	DESCRIPTION	DATE
1	TAC COMMENTS	12/5/14

Project Number 2014.02154

SITE DETAILS

C605

GENERAL NOTES

1. ALL WORK TO CONFORM TO STATE AND LOCAL REGULATIONS.
2. CONTRACTOR SHALL KEEP ADJOINING PROPERTIES CLEAN OF CONSTRUCTION DEBRIS AND CONSTRUCTION TRAFFIC AT ALL TIMES.
3. THE CONTRACTOR SHALL PROTECT AND NOT DESTROY THE BASE SURVEY CONTROL POINTS DURING DEMOLITION AND CONSTRUCTION.
4. ALL UTILITY INFORMATION SHALL BE VERIFIED BY THE CONTRACTOR. CONTACT ENGINEER IMMEDIATELY IF ANY VARIATION EXISTS.
5. MAINTAIN EXISTING UTILITIES TO REMAIN IN SERVICE AND PROTECT AGAINST DAMAGE DURING DEMOLITION AND CONSTRUCTION OPERATIONS.
6. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FIELD DIMENSIONS. IF ANY DISCREPANCIES ARE FOUND IN THESE PLANS FROM ACTUAL FIELD CONDITIONS, THE CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY.

DEMOLITION NOTES

1. CLEAR AND GRUB ALL TREES AND VEGETATION NECESSARY FOR CONSTRUCTION.
2. PROTECT TREES TO REMAIN DURING CONSTRUCTION.
3. PLANT MATERIALS TO REMAIN, TO BE PROTECTED BY TREE FENCE WHICH ENCOMPASSES IT'S DRIP LINE. NO CONSTRUCTION EQUIPMENT, MATERIALS OR DEBRIS SHALL BE LOCATED WITHIN TREE PROTECTION BOUNDARIES. NO DEMOLITION CAN OCCUR UNTIL TREE PROTECTION IS APPROVED BY THE OWNER.
4. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EXISTING STRUCTURES, FENCES, CONCRETE, ASPHALT PAVEMENT AND OTHER MISCELLANEOUS APPURTENANCES OFF SITE, UNLESS NOTED TO REMAIN ON THE CONTRACT DRAWINGS.
5. THE USE OF ANY TYPE OF EXPLOSIVES WILL NOT BE PERMITTED.
6. CONDUCT DEMOLITION AND CONSTRUCTION OPERATIONS TO ENSURE MINIMAL INTERFERENCE WITH STREETS, WALKS AND OTHER ADJACENT OCCUPIED FACILITIES.
7. DO NOT CLOSE OR OBSTRUCT STREETS, WALKS OR OTHER OCCUPIED FACILITIES WITHOUT PERMISSION FROM THE LOCAL AUTHORITIES HAVING JURISDICTION. PROVIDE ALTERNATE ROUTES AROUND CLOSED OR OBSTRUCTED TRAFFIC WAYS, IF REQUIRED BY GOVERNING AUTHORITIES.
8. ENSURE SAFE PASSAGE OF PERSONS AROUND AREAS OF DEMOLITION AND CONSTRUCTION. CONDUCT OPERATIONS TO PREVENT DAMAGE TO ADJACENT STRUCTURES AND OTHER FACILITIES AND INJURY TO PERSONS.
9. PROMPTLY REPAIR DAMAGE TO ADJACENT FACILITIES CAUSED BY DEMOLITION AND CONSTRUCTION OPERATIONS.
10. ALL UTILITIES TO BE REMOVED SHALL BE DISCONNECTED AND CAPPED AT THE NEAREST CONNECTION POINT.
11. NO ON-SITE BURNING IS PERMITTED.
12. CONTRACTOR SHALL USE MEASURES TO CONTROL DUST AT ALL TIMES.
13. DEMOLITION ITEMS INCLUDE BUT ARE NOT LIMITED TO DEMOLITION ITEMS INDICATED ON THIS PLAN. IT IS THE CONTRACTORS RESPONSIBILITY TO REMOVE OR RELOCATE ITEMS WHICH INTERFERE WITH NEW CONSTRUCTION.
14. ALL EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO COMMENCING DEMOLITION.

SITE NOTES

1. ALL PARKING STRIPES ARE TO BE 4" PAINTED (WHITE). ADA ACCESSIBLE PARKING STRIPES SHALL BE 4" PAINTED (BLUE).
2. ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT OR FACE OF CURB, UNLESS NOTED OTHERWISE.
3. ALL DIMENSIONS ARE TO FACE OF BRICK OR FACING MATERIAL, WHERE APPLICABLE.
4. ALL DIMENSIONS ARE PARALLEL WITH, OR PERPENDICULAR TO BASE LINES, PROPERTY LINES OR BUILDING LINES, UNLESS OTHERWISE NOTED.
5. PROVIDE SMOOTH TRANSITIONS FROM NEW AREAS TO EXISTING FEATURES AS NECESSARY.
6. RESURFACE OR RECONSTRUCT AT LEAST TO ORIGINAL CONDITIONS ALL AREAS WHERE THE EXISTING PAVEMENT OR LAWNS ARE DAMAGED DURING CONSTRUCTION FROM TRAFFIC BY CONTRACTORS, SUBCONTRACTORS OR SUPPLIERS AFTER CONSTRUCTION WORK IS COMPLETE.
7. EXISTING PAVEMENT TO BE SAW CUT IN ALL AREAS WHERE INDICATED NEW PAVEMENT TO JOIN EXISTING.
8. THE EDGE OF THE EXISTING ASPHALT PAVEMENT SHALL BE PROPERLY SEALED WITH A TACK COAT MATERIAL IN ALL AREAS WHERE NEW ASPHALT PAVEMENT IS INDICATED TO JOIN EXISTING ASPHALT.
9. CONCRETE SAW CUTTING SHALL BE DONE AS SOON AS POURED CONCRETE HAS CURED AND CAN SUPPORT WEIGHT. PROVIDE A NEAT CUT WHICH IS TRUE IN ALIGNMENT.
10. ALL JOINTS ARE TO CONTINUE THROUGH THE CURB.
11. RADIAL JOINTS SHALL BE NO SHORTER THAN 1.5'.
12. CONTRACTOR SHALL USE A THICKENED EXPANSION JOINT AROUND THE PERIMETER OF ANY BLOCK OUT IN THE CONCRETE PAVING.
13. ALL CONSTRUCTION JOINTS SHALL BE SAWN, CLEANED OF DEBRIS, BLOWN DRY AND IMMEDIATELY SEALED WITH THE APPROPRIATE SEALANT ACCORDING TO MANUFACTURES DIRECTIONS.
14. ALL MATERIALS TO BE IN ACCORDANCE WITH LOCAL DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS RELATIVE TO MATERIAL, MIX, PLACEMENT AND WORKMANSHIP.
15. ALL SIDEWALKS SHALL COMPLY WITH ADA STANDARDS. MAXIMUM CROSS SLOPE OF 1:50 AND MAXIMUM LONGITUDINAL SLOPE OF 1:20.
16. CHAMFER ALL ENDS OF CURBS.

GRADING NOTES

1. SITE GRADING SHALL NOT PROCEED UNTIL EROSION CONTROL MEASURES HAVE BEEN INSTALLED.
2. THE EXCAVATING CONTRACTOR MUST TAKE PARTICULAR CARE WHEN EXCAVATING IN AND AROUND EXISTING UTILITY LINES AND EQUIPMENT. VERIFY COVER REQUIREMENTS BY UTILITY CONTRACTORS AND/OR UTILITY COMPANIES SO AS NOT TO CAUSE DAMAGE.
3. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES 72 HOURS BEFORE CONSTRUCTION IS TO START TO VERIFY IF ANY UTILITIES ARE PRESENT ON SITE. ALL VERIFICATIONS (LOCATION, SIZE AND DEPTH), SHALL BE MADE BY THE APPROPRIATE UTILITY COMPANIES. WHEN EXCAVATING AROUND OR OVER EXISTING UTILITIES, THE CONTRACTOR MUST NOTIFY THE UTILITY COMPANY SO A REPRESENTATIVE OF THAT UTILITY COMPANY CAN BE PRESENT TO INSTRUCT AND OBSERVE DURING CONSTRUCTION. SUBCONTRACTORS ARE RESPONSIBLE FOR LOCATIONS OF UTILITIES FOR THEIR OWN WORK.
4. CONTRACTOR TO ADJUST ALL EXISTING SURFACE INFRASTRUCTURE (HYDRANTS, VALVES, HANDHOLES, CASTINGS, IRRIGATION SYSTEM, UTILITY PEDESTALS, ETC.) AS REQUIRED TO MEET PROPOSED GRADE AT HIS/HER OWN COST.
5. AFTER STRIPPING TOPSOIL MATERIAL, PROOFROLL SHALL BE PERFORMED BY A LOADED TANDEM PNEUMATIC TIRE DUMP TRUCK MINIMUM GROSS VEHICLE WEIGHT OF 22 TONS. THE TIRES SHALL BE OPERATED AT INFLATION PRESSURES BETWEEN 70-80 PSI UNLESS OTHERWISE NOTED BY THE GEOTECHNICAL ENGINEER. THE TIRES SHALL BE INFLATED WITH AIR ONLY; NO LIQUID SHALL BE USED. THE PROOFROLL SHALL BE COMPLETED UNDER INSPECTION OF SOILS FIRM TO DETERMINE LOCATIONS OF ANY POCKETS OF UNSUITABLE MATERIAL. THE NECESSITY FOR SUBDRAINS AND/OR REMOVAL OF ANY UNSUITABLE MATERIAL WILL BE DETERMINED AT THE TIME OF CONSTRUCTION.
6. PROVIDE POSITIVE DRAINAGE WITHOUT PONDING IN ALL AREAS. AFTER INSTALLATION, CONTRACTOR TO TEST FOR, AND CORRECT, IF ANY, STANDING WATER CONDITIONS.
7. ALL PROPOSED SPOT ELEVATIONS OR CONTOURS ARE THE FINAL PAVEMENT AND FINAL GRADE ELEVATIONS.
8. SEE APPROPRIATE DETAILS TO DETERMINE SUBGRADE ELEVATIONS BELOW FINISH GRADE ELEVATIONS INDICATED.
9. TRENCHES FOR ALL STORM DRAIN LINES SHALL BE BACKFILLED COMPLETELY WITH SELECT GRANULAR MATERIAL IF WITHIN 5 FEET OF PAVEMENT.
10. CONTRACTOR TO PERPETUATE ANY SUBSURFACE DRAIN TILES OR PIPES ENCOUNTERED DURING CONSTRUCTION AND PROVIDE POSITIVE OUTLET TO DOWNSTREAM RECEIVING SYSTEM. CONTRACTOR TO NOTIFY THE ENGINEER WITH ANY CIRCUMSTANCES WHERE THIS CANNOT BE ACCOMPLISHED.
11. DUE TO SITE CONSTRAINTS, THE EARTHWORK FOR THE SITE AS DESIGNED MAY OR MAY NOT BALANCE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW THE EXISTING CONDITIONS AND INCLUDE IN THEIR BID ALL EARTHWORK COSTS INCLUDING IMPORTS AND/OR EXPORTS NECESSARY TO MAKE THE SITE BALANCE.
12. CONTRACTOR TO STABILIZE EXPOSED EARTH AS INDICATED BY THE STORMWATER POLLUTION PREVENTION PLAN OR GOVERNING AUTHORITY.

UTILITY NOTES

1. SITE UTILITIES SHALL NOT PROCEED UNTIL EROSION CONTROL MEASURES HAVE BEEN INSTALLED.
2. THE EXCAVATING CONTRACTOR MUST TAKE PARTICULAR CARE WHEN EXCAVATING IN AND AROUND EXISTING UTILITY LINES AND EQUIPMENT. VERIFY COVER REQUIREMENTS BY UTILITY CONTRACTORS AND/OR UTILITY COMPANIES SO AS NOT TO CAUSE DAMAGE.
3. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES 72 HOURS BEFORE CONSTRUCTION IS TO START TO VERIFY IF ANY UTILITIES ARE PRESENT ON SITE. ALL VERIFICATIONS (LOCATION, SIZE AND DEPTH), SHALL BE MADE BY THE APPROPRIATE UTILITY COMPANIES. WHEN EXCAVATING AROUND OR OVER EXISTING UTILITIES, THE CONTRACTOR MUST NOTIFY THE UTILITY COMPANY SO A REPRESENTATIVE OF THAT UTILITY COMPANY CAN BE PRESENT TO INSTRUCT AND OBSERVE DURING CONSTRUCTION. SUBCONTRACTORS ARE RESPONSIBLE FOR LOCATIONS OF UTILITIES FOR THEIR OWN WORK.
4. CONTRACTOR TO ADJUST ALL EXISTING SURFACE INFRASTRUCTURE (HYDRANTS, VALVES, HANDHOLES, CASTINGS, IRRIGATION SYSTEM, UTILITY PEDESTALS, ETC.) AS REQUIRED TO MEET PROPOSED GRADE.
5. ALL UTILITY MATERIALS AND INSTALLATION SHALL CONFORM TO LOCAL STANDARDS FOR EACH UTILITY AGENCY HAVING JURISDICTION.
6. TRENCHES FOR ALL UTILITY LINES SHALL BE BACKFILLED COMPLETELY WITH SELECT GRANULAR MATERIAL IF WITHIN 5 FEET OF PAVEMENT.
7. CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES AND CONDUITS TO AVOID CONFLICTS AND PROVIDE REQUIRED MINIMUM DEPTHS OF COVER. THE CONTRACTOR SHALL PROVIDE ANY ADDITIONAL BENDS WITH THRUST BLOCKS REQUIRED TO ASSURE PROPER INSTALLATION OF WATER MAINS AND LATERALS.
8. IN THE EVENT OF A CONFLICT BETWEEN WATER LINES AND STORM DRAINS, THE CONTRACTOR SHALL EITHER ADJUST THE WATER LINE DOWNWARD IN SUCH A MANNER SO THAT THE PIPE MANUFACTURER'S RECOMMENDATIONS ON PIPE DEFLECTION AND JOINT STRESS ARE NOT EXCEEDED OR THE CONTRACTOR SHALL PROVIDE APPROPRIATE BENDS AND CROSSINGS.
9. ALL COORDINATES AND DIMENSIONS ARE TO THE CENTERLINE OF UTILITIES AND STRUCTURES.

EROSION CONTROL NOTES

1. CONTRACTOR SHALL INSTALL ALL PERIMETER SILT FENCE AND SEDIMENT CONTROL BARRIERS PRIOR TO CLEARING AND GRADING.
2. THIS PLAN SHALL NOT BE CONSIDERED ALL INCLUSIVE AS THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT SOIL SEDIMENT FROM LEAVING THE SITE.
3. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IF DEEMED NECESSARY BY ON SITE INSPECTION.
4. LAND ALTERATION WHICH STRIPS THE LAND OF VEGETATION, INCLUDING RE-GRADING, SHALL BE DONE IN A WAY THAT WILL MINIMIZE EROSION.
5. SEDIMENT LADEN WATER SHALL BE DETAINED BY EROSION CONTROL PRACTICES AS NEEDED TO MINIMIZE SEDIMENTATION IN RECEIVING WATER. NO STORM WATER SHALL BE DISCHARGED FROM THE SITE IN A MANNER THAT CAUSES EROSION AT THE POINT OF DISCHARGE.
6. WASTE AND UNUSED BUILDING MATERIALS SHALL NOT BE ALLOWED TO BE CARRIED FROM THE SITE BY STORM WATER RUNOFF. PROPER DISPOSAL OF ALL WASTE AND UNUSED BUILDING MATERIALS IS REQUIRED.
7. SEDIMENT BEING TRACKED ONTO PUBLIC OR PRIVATE ROADWAYS SHALL BE MINIMIZED. CLEARING OF ACCUMULATED SEDIMENT SHALL NOT INCLUDE FLUSHING WITH WATER. CLEARED SEDIMENT SHALL BE RETURNED TO THE SITE FOR DISPOSAL.
8. SOIL WHICH HAS ACCUMULATED NEXT TO EROSION CONTROL DEVICES SHALL BE COLLECTED AND RE-DISTRIBUTED ON SITE AFTER EACH RAINFALL EVENT, AND AT LEAST ONCE A WEEK.
9. IF INSTALLATION OF STORM DRAINAGE SYSTEM SHOULD BE INTERRUPTED BY WEATHER OR NIGHTFALL, THE PIPE ENDS SHALL BE COVERED WITH FILTER FABRIC.
10. THE SITE IS NOT LOCATED WITHIN ANY FLOODPLAIN, FLOODWAY OR FLOODWAY FRINGE AS INDICATED ON THE FLOOD INSURANCE RATE MAP (FIRM) FOR HAMILTON COUNTY, IN, MAP NUMBER 18057C0120F, DATED FEBRUARY 19, 2003.
11. SCHEDULE OF EARTHWORK ACTIVITIES:
 - a. THE DURATION OF TIME WHICH AN AREA REMAINS EXPOSED SHALL BE KEPT TO A PRACTICAL MINIMUM. THE AREA SHALL BE STABILIZED AS SOON AS POSSIBLE. UN-VEGETATED AREAS THAT ARE SCHEDULED OR LIKELY TO BE LEFT INACTIVE FOR FIFTEEN (15) DAYS OR MORE MUST BE TEMPORARILY OR PERMANENTLY STABILIZED WITH MEASURES APPROPRIATE FOR THE SEASON TO MINIMIZE EROSION POTENTIAL. ALTERNATIVE MEASURES TO SITE STABILIZATION ARE ACCEPTABLE IF THE PROJECT SITE OWNER OR THEIR REPRESENTATIVE CAN DEMONSTRATE THEY HAVE IMPLEMENTED EROSION AND SEDIMENT CONTROL MEASURES ADEQUATE TO PREVENT SEDIMENT DISCHARGE.
 - b. TOPSOIL REPLACEMENT SHALL TAKE PLACE FROM MARCH 1 TO OCTOBER 31. STOCKPILE TOPSOIL AT ALL OTHER TIMES OF THE YEAR. PERMANENT AND FINAL VEGETATION AND STRUCTURAL EROSION CONTROL DEVICES SHALL BE INSTALLED WITHIN SEVEN (7) DAYS AFTER FINAL GRADING OR AS SOON AS POSSIBLE.
 - c. INSTALL INLET PROTECTION AROUND INLETS IMMEDIATELY UPON COMPLETION OF THE STRUCTURE. REMOVE INLET PROTECTION FOR PAVING OPERATION. REPLACE INLET PROTECTION AFTER PAVING IS COMPLETE. INLET PROTECTION SHALL REMAIN IN PLACE UNTIL VEGETATION IS ESTABLISHED ON SEEDED AREAS BEHIND THE CURB.
15. PRIOR TO COMPLETION OF THE PROJECT, CONTRACTOR SHALL CLEAN OUT ALL STORM DRAINAGE STRUCTURES AND RESTORE ALL DITCHES AND PONDS TO DESIGNED GRADES.
16. CONTRACTOR SHALL REMOVE ALL SEDIMENT CONTROL BARRIERS ONCE CONSTRUCTION IS COMPLETE AND THE SITE HAS BEEN STABILIZED.

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 PLOT SCALE: 1:1



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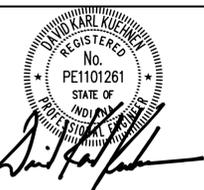


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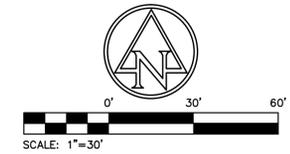
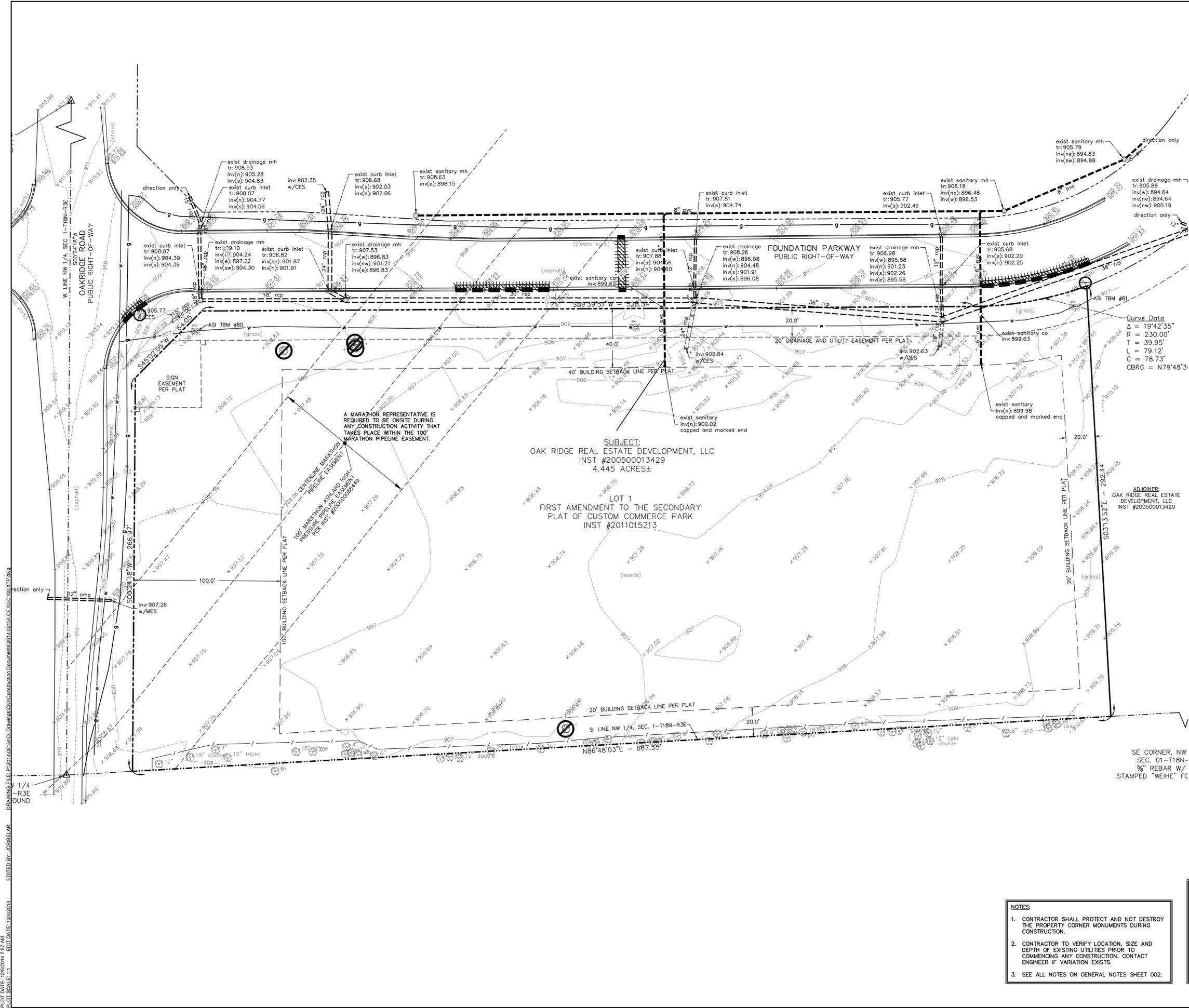
ISSUANCE INDEX	
DATE:	10/31/2014
PROJECT PHASE:	DEVELOPMENT PLANS

REVISION SCHEDULE		
NO.	DESCRIPTION	DATE
△	TAC COMMENTS	12/5/14

Project Number 2014.02154

GENERAL NOTES

C002



- EXISTING LEGEND**
- FIRE HYDRANT
 - GUY WIRE
 - MAILBOX
 - POST
 - LIGHT POLE
 - POWER POLE
 - SANITARY MANHOLE
 - TEMPORARY BENCH MARK
 - TEST HOLE
 - TELEPHONE MANHOLE
 - TELEPHONE MARKER SIGN
 - TELEPHONE PEDESTAL
 - TREE
 - BURIED FIBER OPTIC LINE
 - OVERHEAD ELECTRIC LINE
 - TOP OF RIM ELEVATION
 - INVERT ELEVATION
 - PLASTIC PIPE
 - CORRUGATED METAL PIPE

- DEMOLITION LEGEND**
- EXISTING ASPHALT TO BE REMOVED
 - OBJECT TO BE REMOVED
 - PAVEMENT TO BE SAWCUT
 - STORM SEWER PIPE TO BE REMOVED
 - CURB TO BE REMOVED
 - TREE PROTECTION FENCE (SNOW FENCE OR HIGH VISIBILITY CONSTRUCTION FENCE)
 - OBJECT TO BE RELOCATED

Curve Data
 $\Delta = 19'42'35''$
 $R = 230.00'$
 $L = 39.95'$
 $T = 79.12'$
 $C = 78.73'$
 $CBRG = N79'48'3''$

ADJONER:
 OAK RIDGE REAL ESTATE
 DEVELOPMENT, LLC
 INST #200500013429

SUBJECT:
 OAK RIDGE REAL ESTATE DEVELOPMENT, LLC
 INST #200500013429
 4.445 ACRES±

LOT 1
 FIRST AMENDMENT TO THE SECONDARY
 PLAT OF CUSTOM COMMERCE PARK
 INST #2011015213

A MARATHON REPRESENTATIVE IS
 REQUIRED TO BE ONSITE DURING
 ANY CONSTRUCTION ACTIVITY THAT
 TAKES PLACE WITHIN THE 100'
 MARATHON PIPELINE EASEMENT.

SE CORNER, NW
 SEC. 01-T18N-
 5/8" REBAR W/
 STAMPED "WEIHE" FC

- NOTES:**
1. CONTRACTOR SHALL PROTECT AND NOT DESTROY THE PROPERTY CORNER MONUMENTS DURING CONSTRUCTION.
 2. CONTRACTOR TO VERIFY LOCATION, SIZE AND DEPTH OF EXISTING UTILITIES PRIOR TO COMMENCING ANY CONSTRUCTION. CONTACT ENGINEER IF VARIATION EXISTS.
 3. SEE ALL NOTES ON GENERAL NOTES SHEET 002.

CAUTION !!
 THE LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE BASED UPON ABOVE GROUND EVIDENCE (including, but not limited to, manholes, inlets, valves, and marks made upon the ground by others) AND ARE SPECULATIVE IN NATURE. THERE MAY ALSO BE OTHER EXISTING UNDERGROUND UTILITIES FOR WHICH THERE IS NO ABOVE GROUND EVIDENCE OR FOR WHICH NO ABOVE GROUND EVIDENCE WAS OBSERVED. THE EXACT LOCATIONS OF SAID EXISTING UNDERGROUND UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO ANY AND ALL CONSTRUCTION.
 1-800-382-5544
 CALL TOLL FREE
 - INDIANA UNDERGROUND -



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 Westfield, Indiana 46074
 TEL 317.867.3462 | FAX 317.867.3463
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1	TAC COMMENTS	12/5/14

Project Number 2014.02154

**EXISTING
 TOPOGRAPHY AND
 DEMOLITION PLAN**

C100

DRAWING FILE: P:\2014\02154\02154.Dwg; Drawing: Civil\Construction Documents\2014.02154.CE.03.C100.XTP.dwg
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 PLOT SCALE: 1:1
 EDIT DATE: 12/2/2014
 EDITED BY: JCRBELAR



SCALE: 1"=30'

- EXISTING LEGEND**
- ⊕ FIRE HYDRANT
 - GUY WIRE
 - ⊠ MAILBOX
 - POST
 - ⊙ LIGHT POLE
 - POWER POLE
 - ⊕ SANITARY MANHOLE
 - ⊕ TEMPORARY BENCH MARK
 - ⊕ TEST HOLE
 - ⊕ TELEPHONE MANHOLE
 - ⊕ TELEPHONE MARKER SIGN
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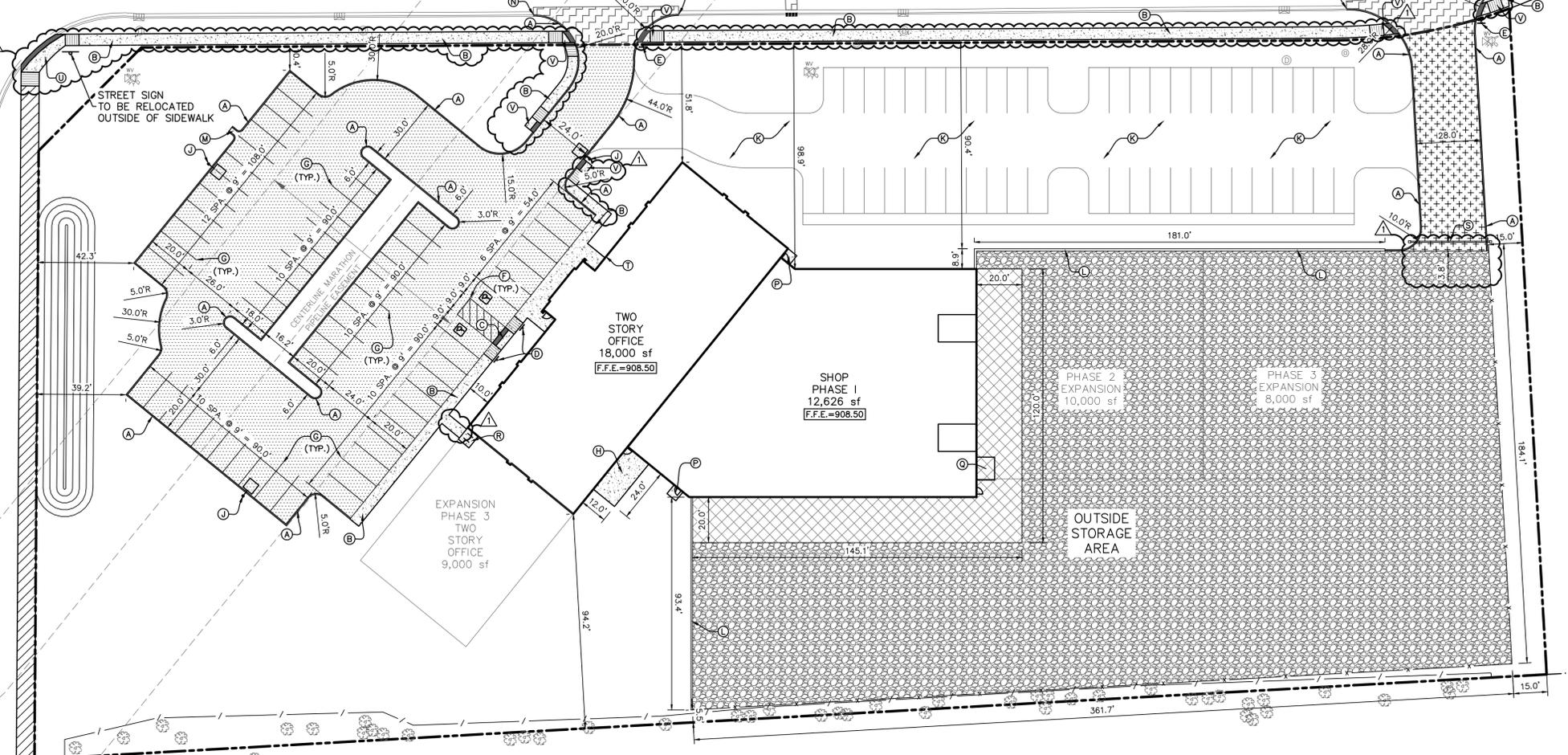
- PROPOSED SITE LEGEND**
- [Pattern] RIGHT OF WAY ASPHALT PAVEMENT (REFER TO SITE DETAILS)
 - [Pattern] LIGHT-DUTY ASPHALT PAVEMENT (REFER TO SITE DETAILS)
 - [Pattern] HEAVY-DUTY ASPHALT PAVEMENT (REFER TO SITE DETAILS)
 - [Pattern] ASPHALT PATH (8' WIDE) (REFER TO SITE DETAILS)
 - [Pattern] CONCRETE SIDEWALK (REFER TO SITE DETAILS)
 - [Pattern] CONCRETE APRON (REFER TO SITE DETAILS)
 - [Pattern] GRAVEL STORAGE YARD (REFER TO SITE DETAILS)
 - REPLACE CURB TO MATCH EXISTING
 - x- 8' WOODEN FENCE (REFER TO ARCHITECTURAL PLANS)
 - (A) 6" CONCRETE CURB (REFER TO SITE DETAILS)
 - (B) CONCRETE SIDEWALK (5' WIDE)
 - (C) A.D.A. CONCRETE RAMP TYPE "K" MODIFIED
 - (D) A.D.A. PARKING SIGN (VAN ACCESSIBLE AS NOTED)
 - (E) STOP SIGN
 - (F) 4" SOLID BLUE, PAINT LINE (A.D.A. SPACE)
 - (G) 4" SOLID WHITE, PAINT LINE
 - (H) CONCRETE PATIO
 - (J) LIGHT POLE (SEE LIGHTING DETAILS)
 - (K) FUTURE IMPROVEMENTS
 - (L) 8" CONCRETE SCREEN WALL (REFER TO ARCHITECTURAL PLANS)
 - (M) TURNOUT (REFER TO SITE DETAILS)
 - (N) TIE POST CURB TO EXISTING CURB AND GUTTER
 - (P) 5' X 5' CONCRETE STOOP
 - (Q) DUMPSTER LOCATION
 - (R) BICYCLE RACK (6.5' X 6' CONCRETE PAD)
 - (S) MOTORIZED GATE WITH KNOX BOX SWITCH (BY OTHERS)
 - (T) KNOX BOX PER WESTFIELD FIRE STANDARDS
 - (U) A.D.A. CONCRETE RAMP TYPE "F"
 - (V) A.D.A. CONCRETE RAMP TYPE "G"
 - (W) A.D.A. ACCESSIBLE PARKING SPACE

OAKRIDGE ROAD
PUBLIC RIGHT-OF-WAY

FOUNDATION PARKWAY
PUBLIC RIGHT-OF-WAY

STREET SIGN
TO BE RELOCATED
OUTSIDE OF SIDEWALK

STREET SIGN
TO BE RELOCATED
OUTSIDE OF SIDEWALK



PARKING ANALYSIS	
TOTAL OFFICE S.F.	= 18,000
REQUIRED RATIO	= 1 SPACE PER 300 S.F.
TOTAL SPACES REQUIRED	= 60
STANDARD PARKING (9'x20')	58
HANDICAP PARKING PROVIDED (INCLUDES 2 VAN ACCESSIBLE)	2
TOTAL OFFICE PARKING	60
TOTAL SHOP S.F.	= 12,626
REQUIRED RATIO	= 1 SPACE PER 2 EMPLOYEES
TOTAL SPACES REQUIRED	= 1
TOTAL SHOP PARKING (IN YARD)	2

CAUTION !!

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1-800-382-5544
CALL TOLL FREE
- INDIANA UNDERGROUND -

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 - SEE ALL NOTES ON GENERAL NOTES SHEET 002.

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TEL 317.867.3462 | FAX 317.867.3463
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ISSUANCE INDEX		
DATE:	10/31/2014	
PROJECT PHASE:	DEVELOPMENT PLANS	

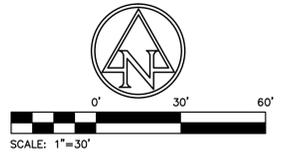
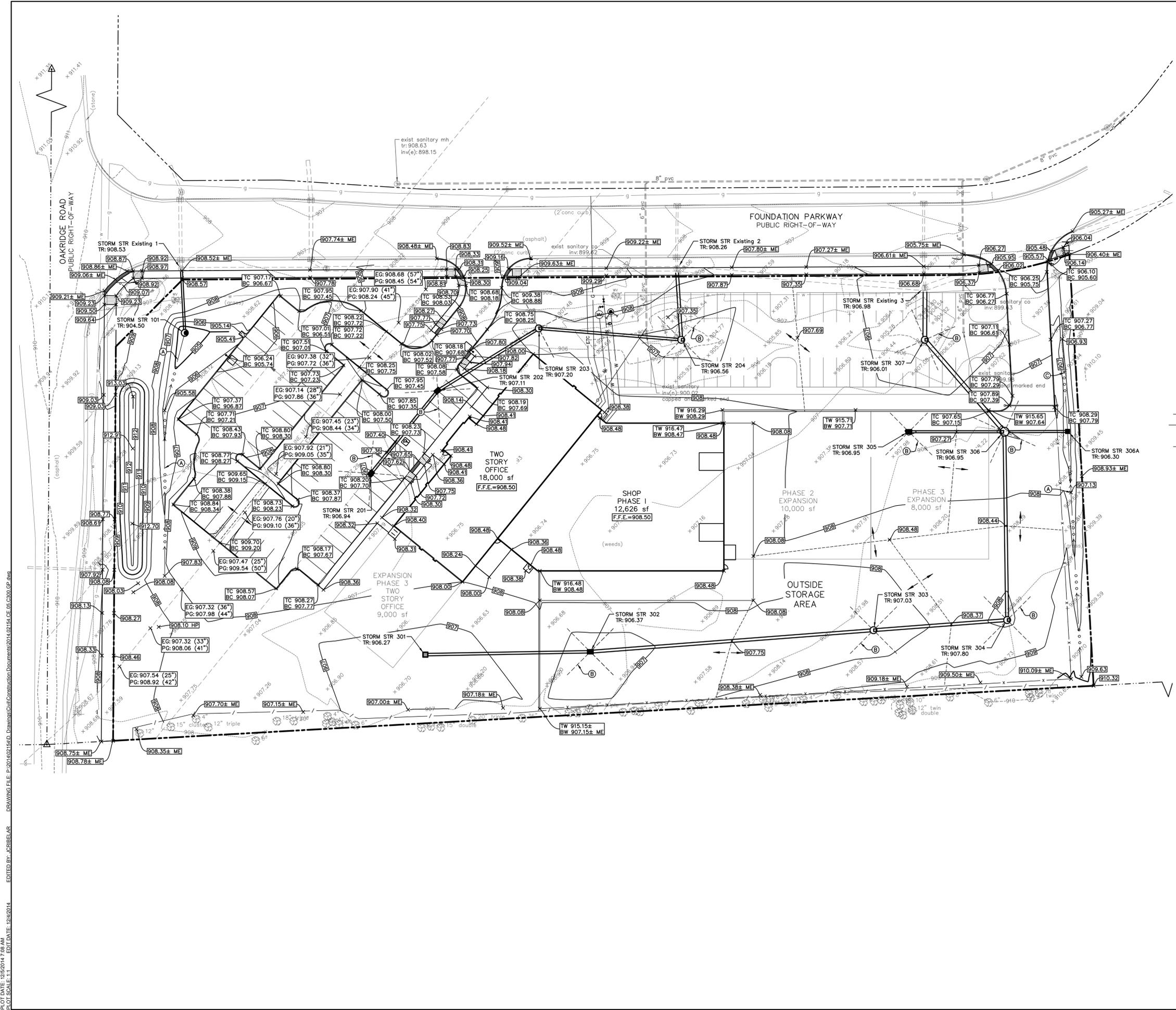
REVISION SCHEDULE		
NO.	DESCRIPTION	DATE
1	TAC COMMENTS	12/5/14

Project Number 2014.02154

SITE PLAN

C200

PLOT DATE: 12/2/2014 7:07 AM
 PLOT SCALE: 1:1
 DRAWING FILE: P:\2014\02154\02154.D Drawing\Chit\Construction Documents\2014.02154.04.C200.SP.dwg
 EDITED BY: JCRIBELAR
 EDIT DATE: 12/2/2014



EXISTING LEGEND

- FIRE HYDRANT
- GUY WIRE
- MAILBOX
- POST
- LIGHT POLE
- POWER POLE
- SANITARY MANHOLE
- TEMPORARY BENCH MARK
- TEST HOLE
- TELEPHONE MANHOLE
- TELEPHONE MARKER SIGN
- TELEPHONE PEDESTAL
- TREE
- WELL
- BURIED FIBER OPTIC LINE
- OVERHEAD ELECTRIC LINE
- TOP OF RIM ELEVATION
- INVERT ELEVATION
- PLASTIC PIPE
- CORRUGATED METAL PIPE

PROPOSED GRADING LEGEND

- M.E. MATCH EXISTING
- EP EDGE OF PAVEMENT
- BC BOTTOM OF CURB
- TC TOP OF CURB
- TW TOP OF WALL
- BW BOTTOM OF WALL
- EG EXISTING GRADE
- PG PROPOSED GRADE
- 000 CONTOURS
- o-o-o FLOW LINE
- RIDGE LINE
- TC 000.50
BC 000.00 CURB ELEVATIONS
- 000.00 SPOT ELEVATIONS
- (A) SWALE AT 2.01% MIN. SLOPE
- (B) 4" PAVEMENT UNDERDRAIN (REFER TO SITE DETAILS)
- (C) SWALE AT 1.0% MIN. SLOPE WITH UNDERDRAIN

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 - SEE ALL NOTES ON GENERAL NOTES SHEET 002.
 - CONTRACTOR SHALL VERIFY REQUIRED PAD HEIGHT AND DIMENSION WITH SITE SUPERVISOR PRIOR TO PAD CONSTRUCTION. ALL PADS SHALL BE PROPERLY COMPACTED, ROLLED AND CROWNED TO PROVIDE PROPER RUNOFF.
 - ALL DOWNSPOUTS TO HAVE SPLASH BLOCKS AT GRADE.
 - PLUMBER SHALL RECOGNIZE SANITARY MAIN ELEVATION PRIOR TO INSTALLING INTERIOR PLUMBING.
 - CONTRACTOR TO AVOID CUTS OF 6 INCHES OR GREATER OVER EXISTING TELPHONE/FIBER LINE.



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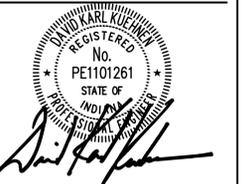


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GRADING PLAN

C300

PLOT DATE: 12/2/2014 7:08 AM
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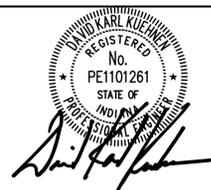


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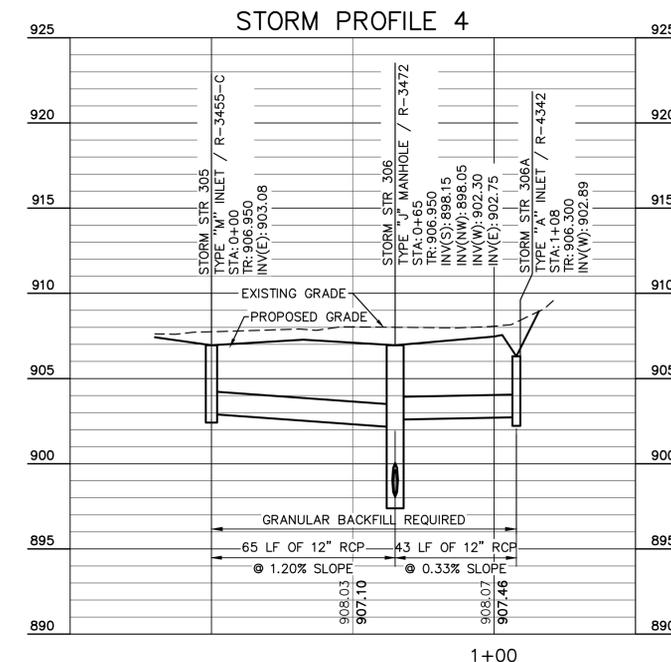
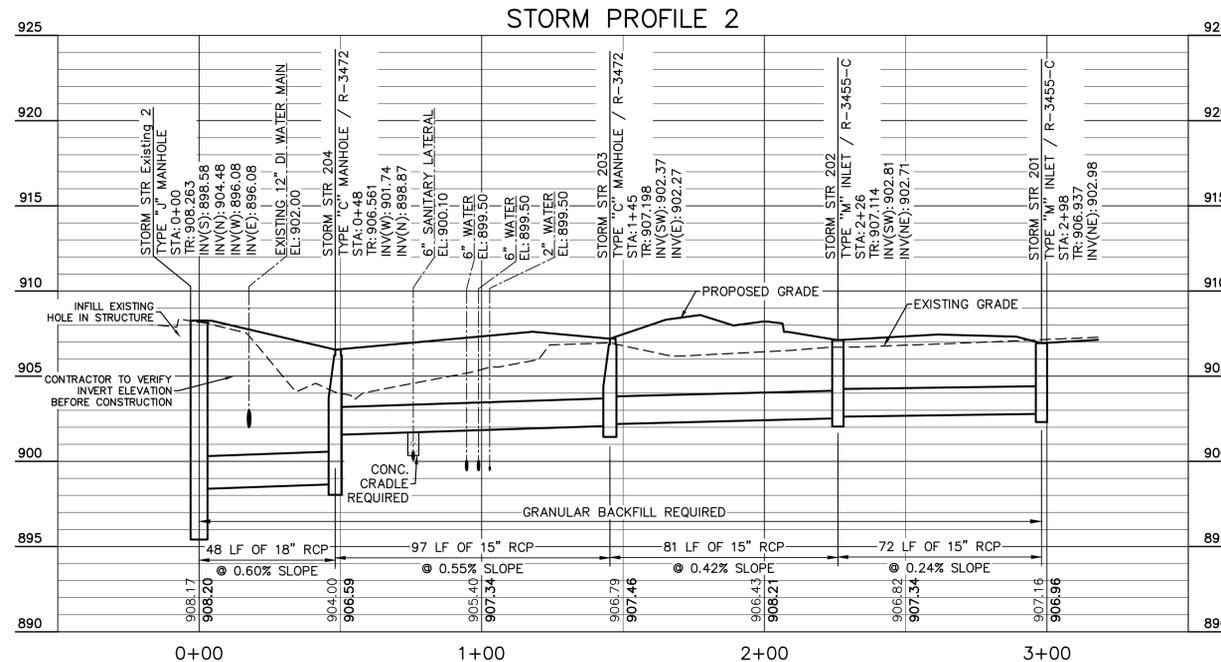
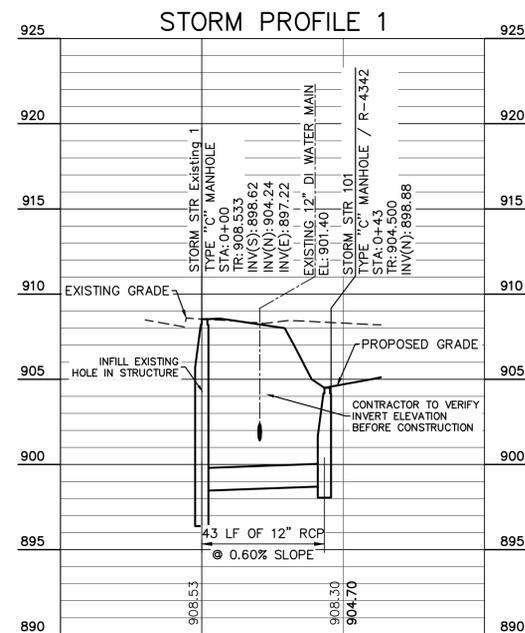
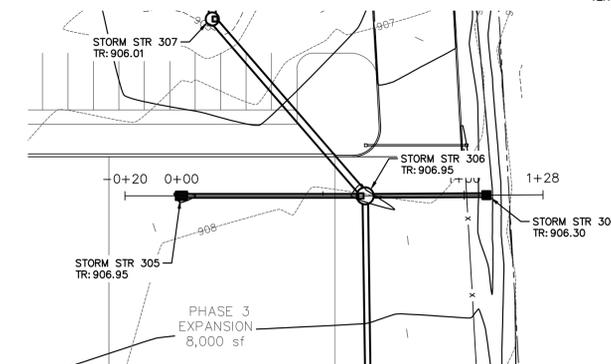
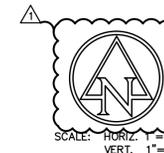
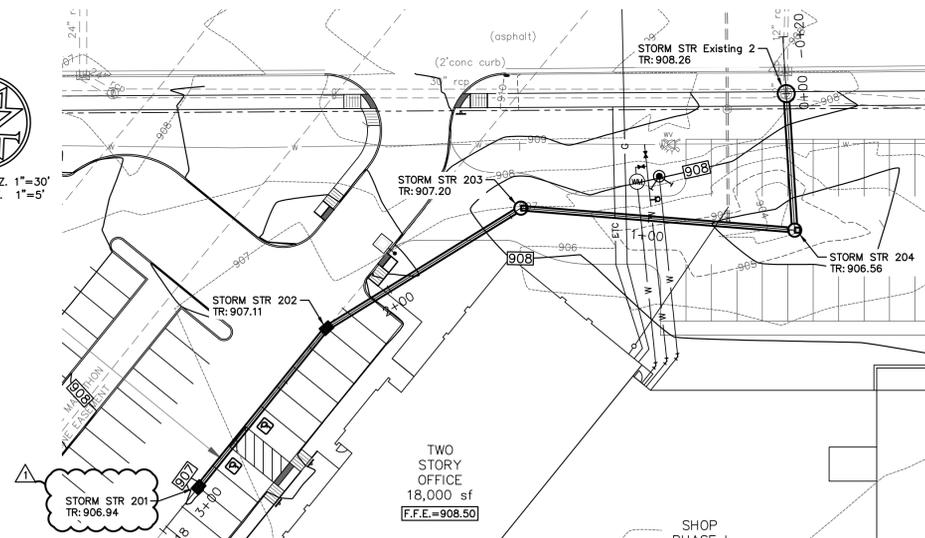
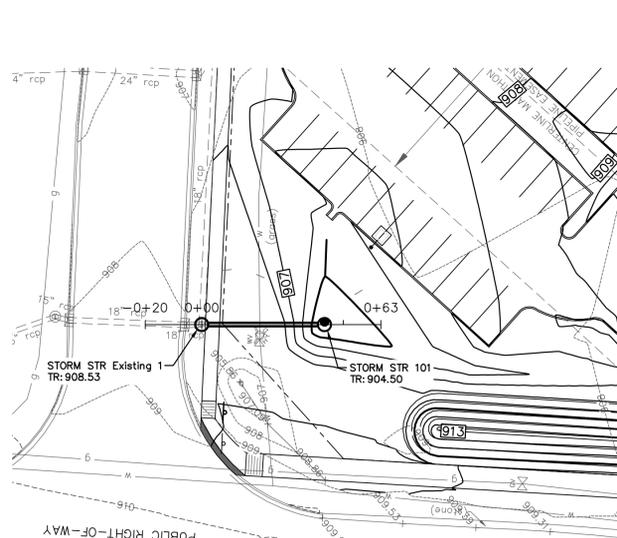
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**STORM PLAN &
PROFILE**

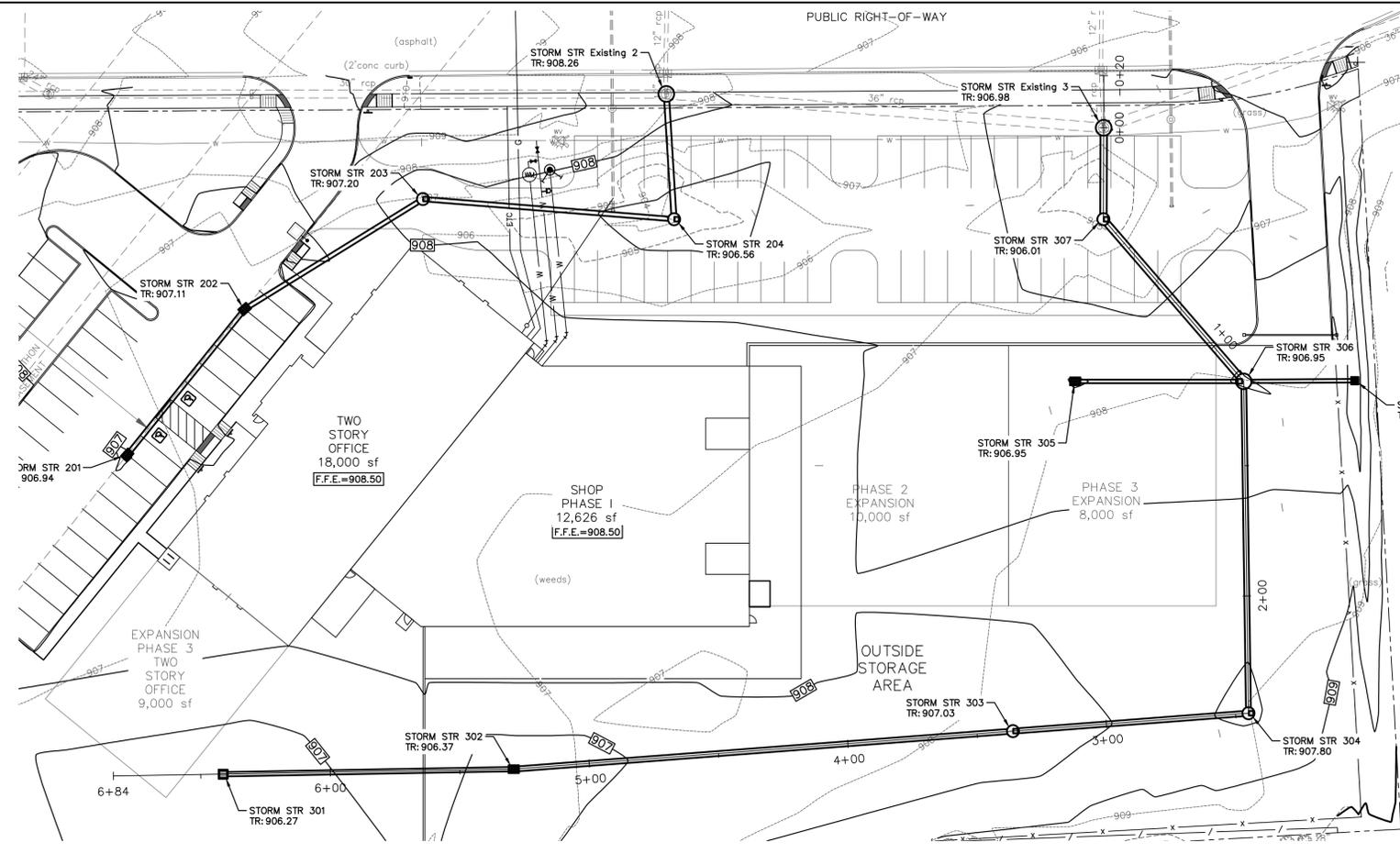
C301



- NOTES:**
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- INDIANA UNDERGROUND -

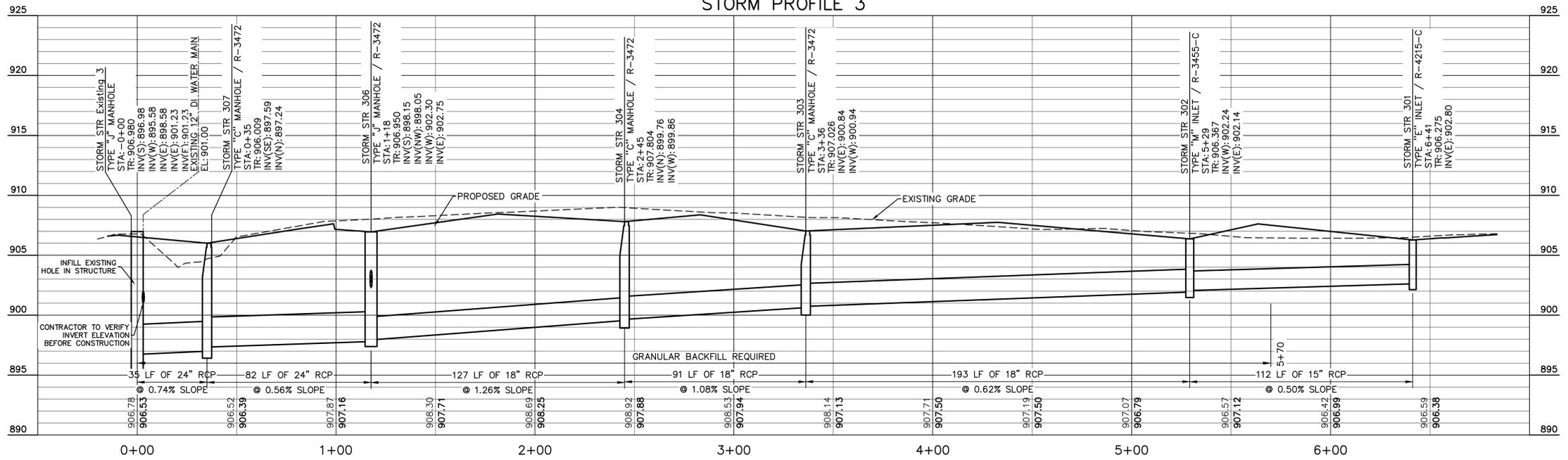
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PIPE DATA TABLE						
STRUCT. NO.	INV.	L.F.	SIZE & TYPE	STRUCT. NO.	INV.	GRADE %
101	898.88	43	12" & RCP	Existing 1	898.62	0.60%
201	902.98	72	15" & RCP	202	902.81	0.24%
202	902.71	81	15" & RCP	203	902.37	0.42%
203	902.27	97	15" & RCP	204	901.74	0.55%
204	898.87	48	18" & RCP	Existing 2	898.58	0.60%
301	902.80	112	15" & RCP	302	902.24	0.50%
302	902.14	193	18" & RCP	303	900.94	0.62%
303	900.84	91	18" & RCP	304	899.86	1.08%
304	899.76	127	18" & RCP	306	898.15	1.26%
305	903.08	65	12" & RCP	306	902.30	1.20%
306	898.05	82	24" & RCP	307	897.59	0.56%
306A	902.89	43	12" & RCP	306	902.75	0.33%

STRUCTURE DATA TABLE						
STR. NO.	STRUCTURE AND CASTING TYPE	TOP OF RIM	INVERT	SIZE	DIRECTION	REMARKS
101	R-4342 TYPE C MH	904.50	898.88	12"	N	
201	R-3455-C TYPE M INLET	906.94	902.98	15"	NE	
202	R-3455-C TYPE M INLET	907.11	902.81	15"	SW	
203	R-3455-C TYPE C MH	907.20	902.37	15"	SW	
204	R-3455-C TYPE C MH	906.56	901.74	15"	W	
301	R-4215-C TYPE E INLET	906.27	898.87	18"	N	
302	R-3455-C TYPE M INLET	906.37	902.24	15"	W	
303	R-3455-C TYPE C MH	907.03	900.94	18"	W	
304	R-3472 TYPE C MH	907.80	899.86	18"	W	
305	R-3455-C TYPE M INLET	906.95	899.76	18"	N	
306	R-3455-C TYPE J MH	906.95	898.15	18"	S	
			902.30	12"	W	
			898.05	24"	NW	
306A	R-4342 TYPE A INLET	906.30	902.89	12"	W	

STORM PROFILE 3



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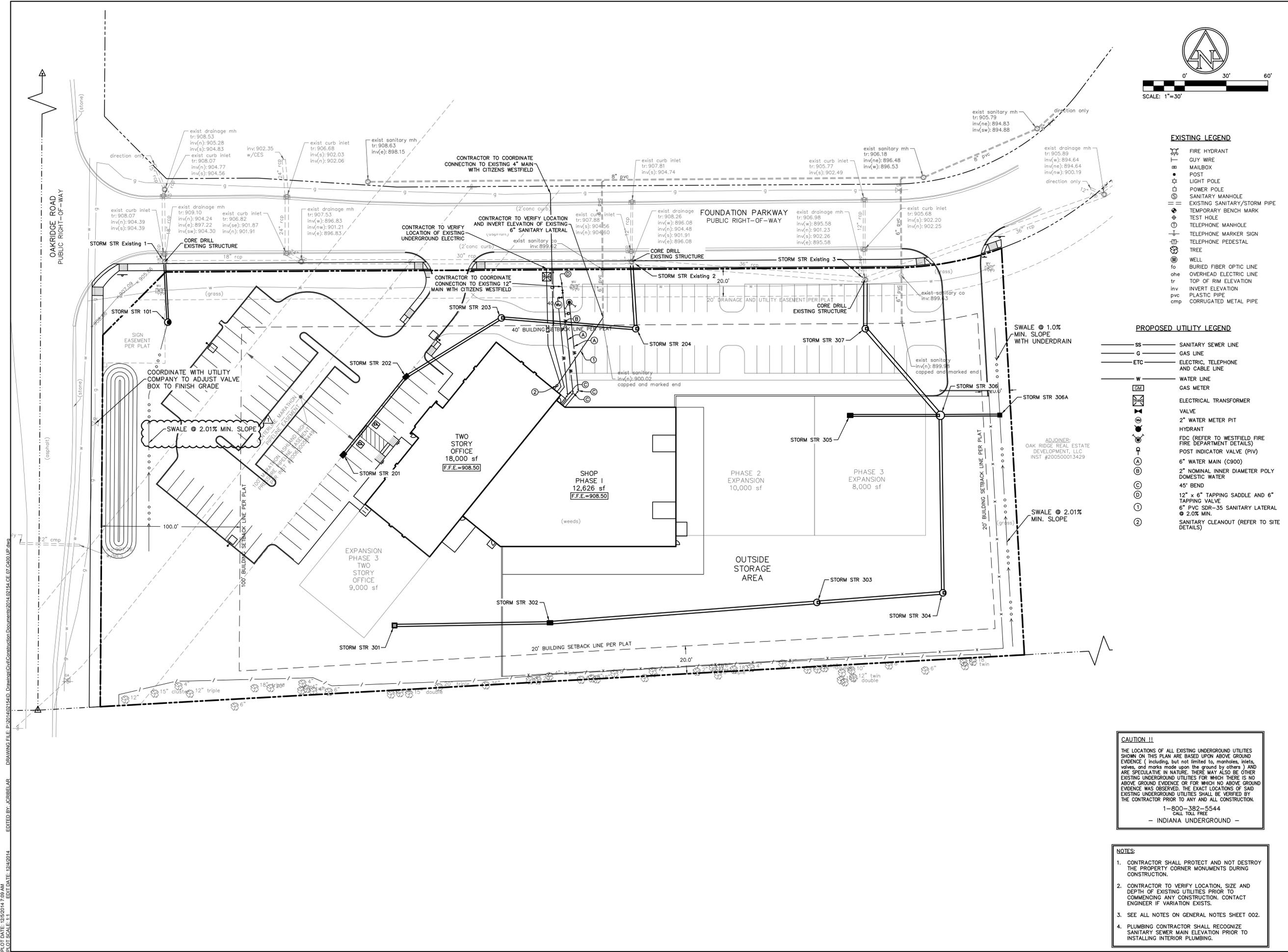
REVISION SCHEDULE		
NO.	DESCRIPTION	DATE
△	TAC COMMENTS	12/5/14

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STORM PLAN & PROFILE

C302

PLOT DATE: 12/2/2014 7:08 AM
 EDIT DATE: 11/11/2014
 DRAWING FILE: D:\2014\02\154\0_Drawing\Chul\Construction Documents\2014.02.154.CE.06.C301.C302.ST.MPP.dwg
 EDITED BY: JCRIBELAR



0' 30' 60'
SCALE: 1"=30'

EXISTING LEGEND

- ⊗ FIRE HYDRANT
- GUY WIRE
- ⊠ MAILBOX
- ⊙ POST
- ⊕ LIGHT POLE
- ⊡ POWER POLE
- ⊞ SANITARY MANHOLE
- EXISTING SANITARY/STORM PIPE
- ⊕ TEMPORARY BENCH MARK
- ⊕ TEST HOLE
- ⊕ TELEPHONE MANHOLE
- ⊕ TELEPHONE MARKER SIGN
- ⊕ TELEPHONE PEDESTAL
- ⊕ TREE
- ⊕ WELL
- fo BURIED FIBER OPTIC LINE
- ohe OVERHEAD ELECTRIC LINE
- tr TOP OF RIM ELEVATION
- inv INVERT ELEVATION
- pvc PLASTIC PIPE
- cmp CORRUGATED METAL PIPE

PROPOSED UTILITY LEGEND

- SS SANITARY SEWER LINE
- G GAS LINE
- ETC ELECTRIC, TELEPHONE AND CABLE LINE
- W WATER LINE
- ⊕ G/M GAS METER
- ⊕ ELECTRICAL TRANSFORMER
- ⊕ VALVE
- ⊕ 2" WATER METER PIT
- ⊕ HYDRANT
- ⊕ FDC (REFER TO WESTFIELD FIRE DEPARTMENT DETAILS)
- ⊕ POST INDICATOR VALVE (PIV)
- ⊕ 6" WATER MAIN (C900)
- ⊕ 2" NOMINAL INNER DIAMETER POLY DOMESTIC WATER
- ⊕ 45° BEND
- ⊕ 12" x 6" TAPPING SADDLE AND 6" TAPPING VALVE
- ⊕ 6" PVC SD-35 SANITARY LATERAL @ 2.0% MIN.
- ⊕ SANITARY CLEANOUT (REFER TO SITE DETAILS)



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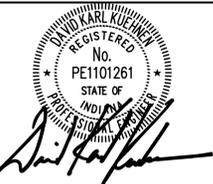


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Project Number 2014.02154

UTILITY PLAN

C400

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 - PLUMBING CONTRACTOR SHALL RECOGNIZE SANITARY SEWER MAIN ELEVATION PRIOR TO INSTALLING INTERIOR PLUMBING.

PLOT DATE: 12/2/2014 7:09 AM
PLOT SCALE: 1:1
DRAWING FILE: D:\2014\02\154\0_Drawing\Chit\Construction Documents\2014.02.154.CE.07.C400.LIP.dwg
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0' 30' 60'
SCALE: 1"=30'



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EXISTING LEGEND

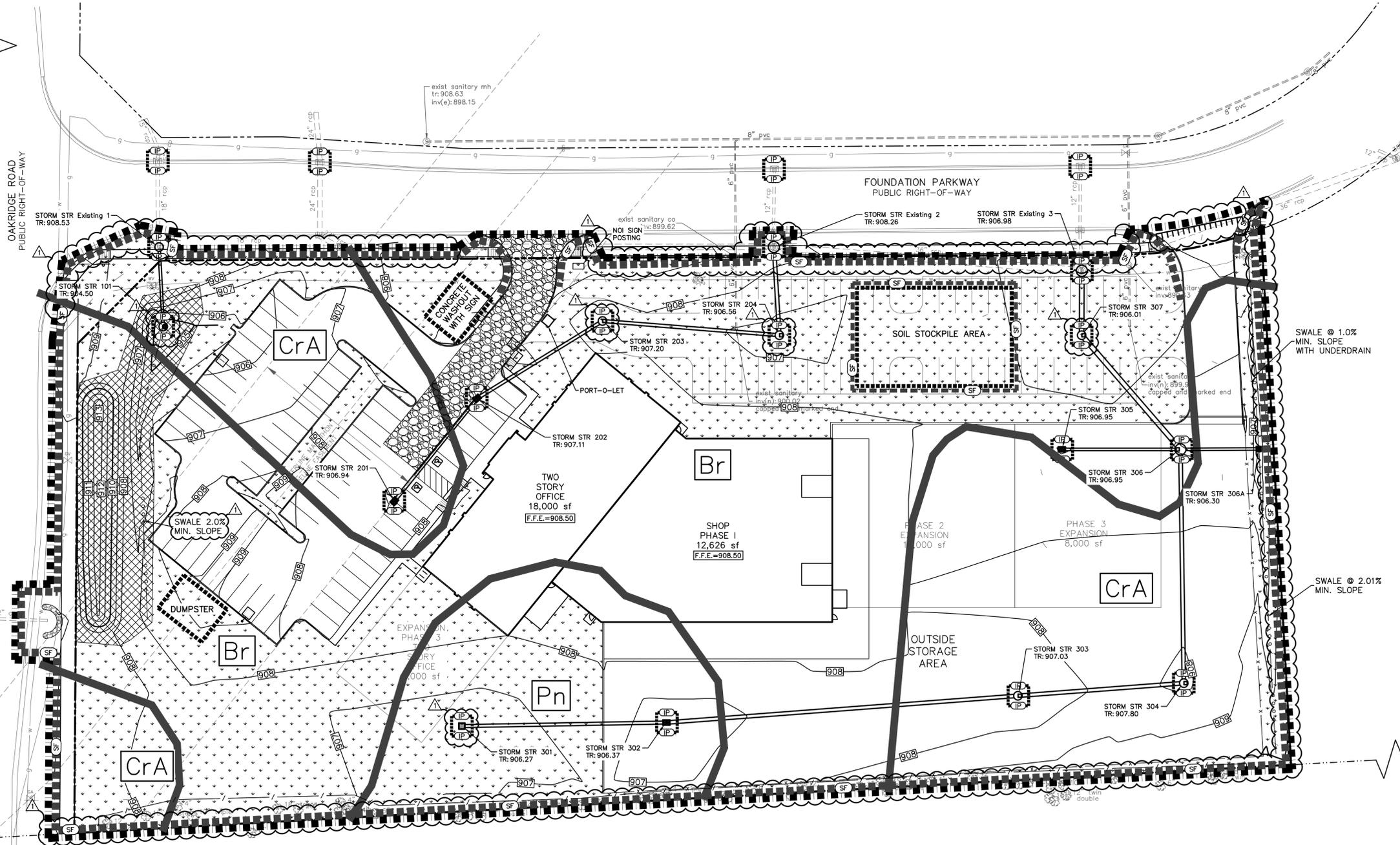
- BEEHIVE INLET
- CURB INLET
- COMBINATION POLE
- DRAINAGE MANHOLE
- FIRE HYDRANT
- GUY WIRE
- SIGN
- SANITARY MANHOLE
- TELEPHONE POLE
- WATER VALVE
- TREE
- OVERHEAD TELEPHONE LINE
- OVERHEAD ELECTRIC LINE
- TOP OF RIM ELEVATION
- INVERT ELEVATION
- REINFORCED CONCRETE PIPE
- PLASTIC PIPE

PROPOSED EROSION CONTROL LEGEND

- SILT FENCE
- DROP INLET PROTECTION
- SILT FENCE INLET PROTECTION
- EROSION CONTROL BLANKET
- PERMANENT SEEDING
- GRAVEL CONSTRUCTION ENTRANCE
- CONTOURS
- SWALE (2% MINIMUM SLOPE)
- SOIL BOUNDARY LINE
- CONSTRUCTION LIMITS
- TREE PROTECTION FENCE (SNOW FENCE OR HIGH VISIBILITY CONSTRUCTION FENCE)
- ENTRANCE BARRICADE
- ROCK DONUT

SWALE @ 1.0% MIN. SLOPE WITH UNDERDRAIN

SWALE @ 2.01% MIN. SLOPE



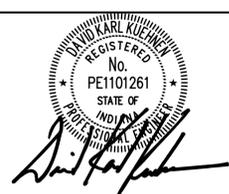
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 - ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES MAY BE REQUIRED BY WPDW INSPECTOR.

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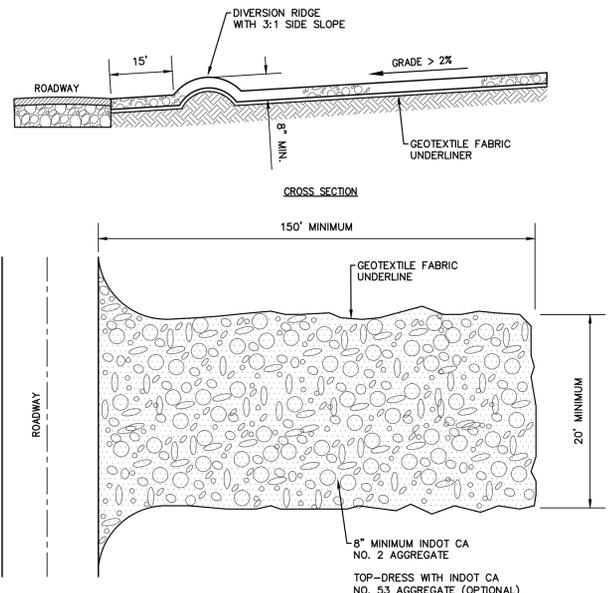
REVISION SCHEDULE		
NO.	DESCRIPTION	DATE
1	TAC COMMENTS	12/5/14

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EROSION CONTROL PLAN

C500

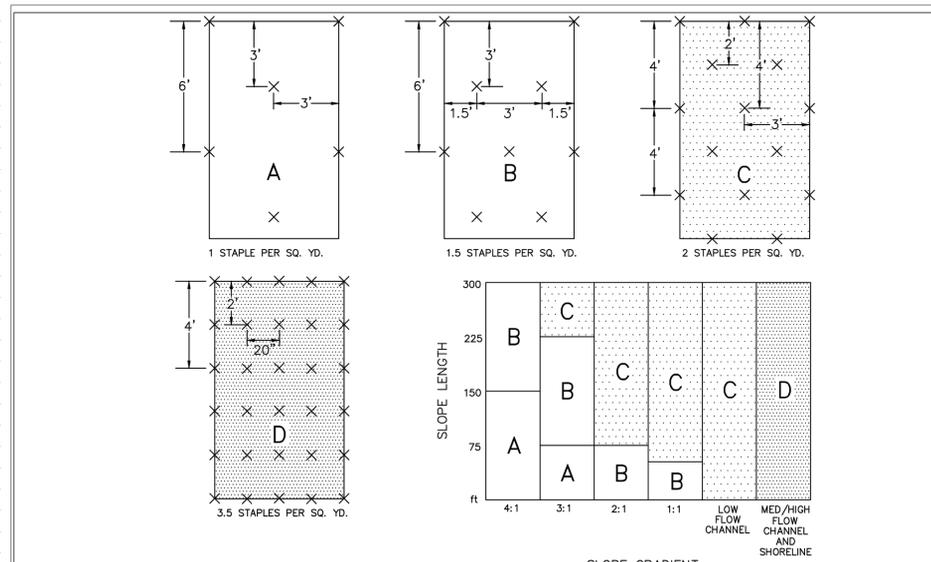
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EDITED BY: JCRBELAR
EDIT DATE: 12/2/2014



SPECIFICATIONS

- LOCATION**
- AVOID LOCATING ON STEEP SLOPES OR AT CURVES IN PUBLIC ROADS.
- DIMENSIONS**
- WIDTH: TWENTY (20) FEET MINIMUM OR FULL WIDTH OF ENTRANCE/EXIT ROADWAY, WHICHEVER IS GREATER.
 - LENGTH: ONE-HUNDRED FIFTY (150) FEET MINIMUM (LENGTH CAN BE SHORTER FOR SMALLER SITES).
 - THICKNESS: EIGHT (8) INCHES MINIMUM.
- MATERIALS**
- ONE (1) TO TWO AND ONE-HALF (2-1/2) INCH DIAMETER WASHED AGGREGATE (INDOT CA NO. 2).
 - ONE-HALF (1/2) TO ONE AND ONE-HALF (1-1/2) INCH WASHED AGGREGATE (INDOT CA NO. 53); OPTIONAL, USED PRIMARILY WHERE THE PURPOSE OF THE PAD IS TO KEEP SOIL FROM ADHERING TO VEHICLE TIRES.
 - GEOTEXTILE FABRIC UNDERLAYMENT (USED AS A SEPARATE LAYER TO PREVENT INTERMIXING OF AGGREGATE AND THE UNDERLYING SOIL MATERIAL AND TO PROVIDE GREATER BEARING STRENGTH WHEN ENCOUNTERING WET CONDITIONS OR SOILS WITH SEASONAL HIGH WATER TABLE LIMITATIONS).
- INSTALLATION**
1. REMOVE ALL VEGETATION AND OTHER OBJECTIONABLE MATERIAL FROM THE FOUNDATION AREA.
 2. GRADE FOUNDATION AND GROWN FOR POSITIVE DRAINAGE. IF THE SLOPE OF THE CONSTRUCTION ENTRANCE IS TOWARD A PUBLIC ROAD AND EXCEEDS TWO (2) PERCENT, CONSTRUCT AN EIGHT (8) INCH HIGH DIVERSION RIDGE WITH A RATIO OF 3-TO-1 SIDE SLOPES ACROSS THE FOUNDATION AREA ABOUT 15 FEET FROM THE ENTRANCE TO DIVERT RUNOFF AWAY FROM THE ROAD (SEE CROSS-SECTION VIEW ABOVE).
 3. INSTALL A CULVERT PIPE UNDER THE PAD IF NEEDED TO MAINTAIN PROPER PUBLIC ROAD DRAINAGE.
 4. IF WET CONDITIONS ARE ANTICIPATED, PLACE GEOTEXTILE FABRIC ON THE GRADED FOUNDATION TO IMPROVE STABILITY.
 5. PLACE AGGREGATE (INDOT CA NO. 2) TO THE DIMENSIONS AND GRADE SHOWN IN THE CONSTRUCTION PLANS, LEAVING THE SURFACE SMOOTH AND SLOPED FOR DRAINAGE.
 6. TOP-DRESS THE FIRST 50 FEET ADJACENT TO THE PUBLIC ROADWAY WITH TWO TO THREE INCHES OF WASHED AGGREGATE (INDOT CA NO. 53). OPTIONAL, USED PRIMARILY WHERE THE PURPOSE OF THE PAD IS TO KEEP SOIL FROM ADHERING TO VEHICLE TIRES.
 7. WHERE POSSIBLE, DIVERT ALL STORM WATER RUNOFF AND DRAINAGE FROM THE TEMPORARY CONSTRUCTION INGRESS/EGRESS PAD TO A SEDIMENT TRAP OR BASIN.
- MAINTENANCE**
- INSPECT DAILY.
 - RESHAPE PAD AS NEEDED FOR DRAINAGE AND RUNOFF CONTROL.
 - TOP-DRESS WITH CLEAN AGGREGATE AS NEEDED.
 - IMMEDIATELY REMOVE MUD AND SEDIMENT TRACKED OR WASHED ONTO PUBLIC ROADS.
 - FLUSHING SHOULD ONLY BE USED IF THE WATER FROM THE CONSTRUCTION DRIVE CAN BE CONVEYED INTO A SEDIMENT TRAP OR BASIN.

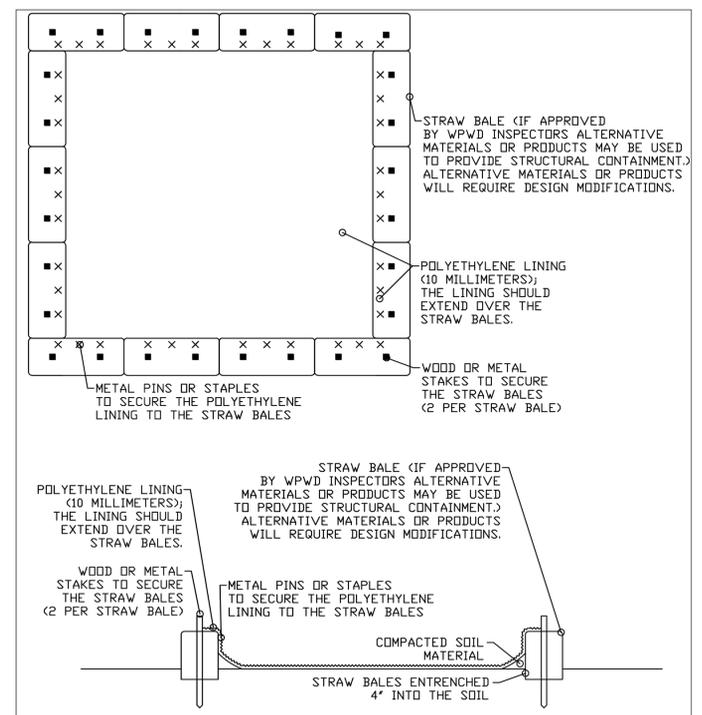
GRAVEL CONSTRUCTION ENTRANCE
(SITES LARGER THAN TWO ACRES)
NOT TO SCALE (REV. 11/13)



EROSION CONTROL MAT – STAPLE GUIDE

CITY OF WESTFIELD, INDIANA

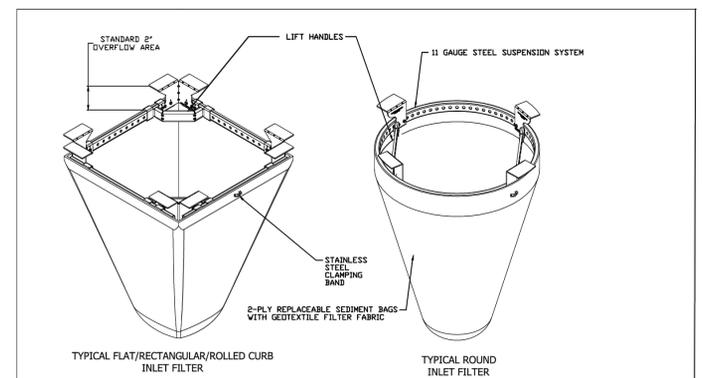
 REGISTERED PROFESSIONAL ENGINEER
 No. 10809092
 STATE OF INDIANA
 Neil B. VanFleet
 DATE 4/1/14
 FIGURE EC-3



CONCRETE WASHOUT DETAIL

CITY OF WESTFIELD, INDIANA

 REGISTERED PROFESSIONAL ENGINEER
 No. 10809092
 STATE OF INDIANA
 Neil B. VanFleet
 DATE 4/1/13
 FIGURE EC-5



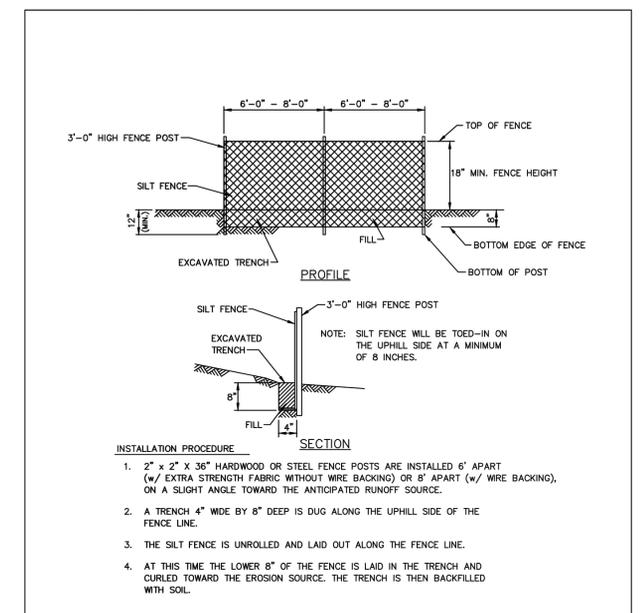
IPP Filter Specifications

Material Property	Test Method	Value (min. ave)
> Inner Filter Bag Specs (2 R' min vol)		
Grab Tensile	ASTM D 4633	100 lbs Non-Woven / 200 lbs Woven Mono
Puncture Strength	ASTM D 4833	65 lbs / 90 lbs
Trapezoidal Tear	ASTM D 4533	45 lbs / 75 lbs
UV Resistance	ASTM D 4355	70% at 500 hrs / 90%
App Open Size (ADS)	ASTM D 4751	70 sieve / 40 sieve / 425 (mm)
Permittivity	ASTM D 4491	2.0/sec / 2.1/sec
Water Flow Rate	ASTM D 4491	145 gpm/sqft / 145 gpm/sqft
> Polyester Outer Reinforcement Bag Specifications		
Weight	ASTM D 3776	4.55 oz/sqyd +/- 15%
Thickness	ASTM D 1777	.040 +/- .005
> Frame Construction		
A36 Structural Steel	ASTM A 376	Tensile Strength > 58,000 psi / Yield Strength > 36,000 psi

INLET PROTECTION

CITY OF WESTFIELD, INDIANA

 REGISTERED PROFESSIONAL ENGINEER
 No. 10809092
 STATE OF INDIANA
 Neil B. VanFleet
 DATE 4/1/13
 FIGURE EC-6



SILT FENCE DETAIL

CITY OF WESTFIELD, INDIANA

 REGISTERED PROFESSIONAL ENGINEER
 No. 10809092
 STATE OF INDIANA
 Neil B. VanFleet
 DATE 4/1/13
 FIGURE EC-4

THIENEMAN
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17219 FOUNDATION PKWY. WESTFIELD, INDIANA

APPROVAL PENDING NOT FOR CONSTRUCTION

REGISTERED PROFESSIONAL ENGINEER
 No. PE1101261
 STATE OF INDIANA
 Neil B. VanFleet
 DATE 4/1/13
 FIGURE EC-5

ISSUANCE INDEX

DATE:	PROJECT PHASE:
10/31/2014	DEVELOPMENT PLANS

REVISION SCHEDULE

NO.	DESCRIPTION	DATE
1	TAC COMMENTS	12/5/14

Project Number 2014.02154
EROSION CONTROL DETAILS

C501

PLOT DATE: 12/2/2014 7:10 AM
 PLOT SCALE: 1:1
 DRAWING FILE: D:\2014\02154\01.Dwg
 DRAWING TITLE: Erosion Control Details
 DRAWING DATE: 11/24/2014
 EDITOR: JCRBELAR

SEEDING SPECIFICATIONS

SEEDBED PREPARATION

- GRADE AND APPLY SOIL AMENDMENTS.

SEEDING FREQUENCY

- SEED ROUGH GRADED AREAS DAILY WHILE SOIL IS STILL LOOSE AND MOIST.

DENSITY OF VEGETATIVE COVER

- EIGHTY PERCENT OR GREATER OVER THE SOIL SURFACE.

MATERIALS

- SOIL AMENDMENTS – SELECT MATERIALS AND RATES AS DETERMINED BY A SOIL TEST (CONTACT YOUR COUNTY SOIL AND WATER CONSERVATION DISTRICT OR COOPERATIVE EXTENSION OFFICE FOR ASSISTANCE AND SOIL INFORMATION, INCLUDING AVAILABLE SOIL TESTING SERVICES) OR 400 TO 600 POUNDS OF 12-12-12 ANALYSIS FERTILIZER, OR EQUIVALENT, CONSIDER THE USE OF REDUCED PHOSPHOROUS APPLICATION WHERE SOIL TESTS INDICATE ADEQUATE PHOSPHOROUS LEVELS IN THE SOIL PROFILE.
- SEED – SELECT APPROPRIATE PLANT SPECIES SEED OR SEED MIXTURES ON THE BASIS OF QUICK GERMINATION, GROWTH, AND TIME OF YEAR TO BE SEED (SEE TABLE 1).
- MULCH – STRAW, HAY, WOOD FIBER, ETC. (TO PROTECT SEEDBED, RETAIN MOISTURE, AND ENCOURAGE PLANT GROWTH). ANCHORED TO PREVENT REMOVAL BY WIND OR WATER OR COVERED WITH MANUFACTURED EROSION CONTROL BLANKETS.

TABLE 1. SLOPE STEEPNESS RESTRICTIONS

SEED SPECIES*	RATE PER ACRE	PLANTING DEPTH	OPTIMUM DATES**
WHEAT OR RYE	150 LBS.	1 TO 1-1/2 INCHES	SEPT. 15-OCT. 30
SPRING OATS	100 LBS.	1 INCH	MARCH 1-APRIL 15
ANNUAL RYEGRASS	40 LBS.	1/4 INCH	MARCH 1-MAY 1 AUG. 1-SEPT. 1
GERMAN MILLET	40 LBS.	1 TO 2 INCHES	MAY 1-JUNE 1
SUDANGRASS	35 LBS.	1 TO 2 INCHES	MAY 1-JULY 30
BUCKWHEAT	60 LBS.	1 TO 2 INCHES	APRIL 15-JUNE 1
CORN (BROADCAST)	300 LBS.	1 TO 2 INCHES	MAY 11-AUG. 10
SORGHUM	35 LBS.	1 TO 2 INCHES	MAY 1-JULY 15

- *PERENNIAL SPECIES MAY BE USED AS A TEMPORARY COVER, ESPECIALLY IF THE AREA TO BE SEEDING WILL REMAIN IDEAL FOR MORE THAN ONE YEAR.
- **SEEDING DONE OUTSIDE THE OPTIMUM SEEDING DATES INCREASES THE CHANCES OF SEEDING FAILURE. DATES MAY BE EXTENDED OR SHORTENED BASED ON THE LOCATION OF THE PROJECT WITHIN THE STATE.

NOTES:

MULCH ALONE IS AN ACCEPTABLE TEMPORARY COVER AND MAY BE USED IN LIEU OF TEMPORARY SEEDING, PROVIDED THAT IT IS APPROPRIATELY ANCHORED.

A HIGH POTENTIAL FOR FERTILIZER, SEED, AND MULCH TO WASH EXISTS ON STEEP BANKS, CUTS, AND IN CHANNELS AND AREAS OF CONCENTRATED FLOW.

SEEDING APPLICATION

SEEDBED PREPARATION

- TEST SOIL TO DETERMINE pH AND NUTRIENT LEVELS.
- APPLY SOIL AMENDMENTS AS RECOMMENDED BY THE SOIL TEST. IF TESTING IS NOT DONE, APPLY 400 TO 600 POUNDS PER ACRE OF 12-12-12 ANALYSIS FERTILIZER, OR EQUIVALENT.
- WORK THE SOIL AMENDMENTS INTO THE UPPER TWO TO FOUR INCHES OF THE SOIL WITH A DISK OR RAKE OPERATED ACROSS THE SLOPE.

SEEDING

- SELECT A SEED SPECIES OR AN APPROPRIATE SEED MIXTURE AND APPLICATION RATE FROM TABLE 1.
- APPLY SEED UNIFORMLY WITH A DRILL OR CULTIPACKER SEEDER OR BY BROADCASTING. PLANT OR COVER SEED TO THE DEPTH SHOWN IN TABLE 1.

NOTES:

- IF DRILLING OR BROADCASTING THE SEED, ENSURE GOOD SEED-TO-SOIL CONTACT BY FIRING THE SEEDBED WITH A ROLLER OR CULTIPACKER AFTER COMPLETING SEED OPERATIONS.
- DAILY SEEDING WHEN THE SOIL IS MOIST IS USUALLY MOST EFFECTIVE.
- IF SEEDING IS DONE WITH A HYDROSEEDER, FERTILIZER AND MULCH CAN BE APPLIED WITH THE SEED IN A SLURRY MIXTURE.

SEEDING MAINTENANCE

- INSPECT WITHIN 24 HOURS OF EACH RAIN EVENT AND AT LEAST ONCE EVERY SEVEN CALENDAR DAYS.
- CHECK FOR EROSION OR MOVEMENT OF MULCH AND REPAIR IMMEDIATELY.
- MONITOR FOR EROSION DAMAGE AND ADEQUATE COVER (80 PERCENT DENSITY); RESEED, FERTILIZE, AND APPLY MULCH WHERE NECESSARY.
- IF NITROGEN DEFICIENCY IS APPARENT, TOP-DRESS FALL SEEDING WHEAT OR RYE SEEDING WITH 50 POUNDS PER ACRE OF NITROGEN IN FEBRUARY OR MARCH.

MULCH SPECIFICATIONS

MATERIALS

TABLE 1. SLOPE STEEPNESS RESTRICTIONS

MATERIAL*	RATE PER ACRE	COMMENTS
STRAW OR HAY	2 TONS	SHOULD BE DRY, FREE OF UNDESIRABLE SEEDS. SPREAD BY HAND OR MACHINE. MUST BE CRIMPED OR ANCHORED (SEE TABLE 2).
WOOD FIBER OR CELLULOSE	1 TON	APPLY WITH A HYDRAULIC MULCH MACHINE AND USE WITH TACKING AGENT.

*MULCHING IS NOT RECOMMENDED IN CONCENTRATED FLOWS. CONSIDER EROSION CONTROL BLANKETS OR OTHER STABILIZATION METHODS.

COVERAGE

- THE MULCH SHOULD HAVE A UNIFORM DENSITY OF AT LEAST 75 PERCENT OVER THE SOIL SURFACE.

ANCHORING

TABLE 2. MULCH ANCHORING METHODS

ANCHORING METHOD*	HOW TO APPLY
MULCH ANCHORING TOOL OR FARM DISK (DULL, SERRATED, AND BLADES SET STRAIGHT)	CRIMP OR PUNCH THE STRAW OR HAY TWO TO FOUR INCHES INTO THE SOIL. OPERATE MACHINERY ON THE CONTOUR OF THE SLOPE.
CLEATING WITH DOZER TRACKS	OPERATE DOZER UP AND DOWN SLOPE TO PREVENT FORMATION OF RILLS BY DOZER CLEATS.
WOOD HYDROMULCH FIBERS	APPLY ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
SYNTHETIC TACKIFIERS, BINDERS, OR SOIL STABILIZERS	APPLY ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
NETTING (SYNTHETIC OR BIODEGRADABLE MATERIAL)	INSTALL NETTING IMMEDIATELY AFTER APPLYING MULCH. ANCHOR NETTING WITH STAPLES. EDGES OF NETTING STRIPS SHOULD OVERLAP WITH EACH UP-SLOPE STRIP OVERLAPPING FOUR TO SIX INCHES OVER THE ADJACENT DOWN-SLOPE STRIP. BEST SUITED TO SLOPE APPLICATIONS. IN MOST INSTANCES, INSTALLATION DETAILS ARE SITE SPECIFIC, SO MANUFACTURER'S RECOMMENDATIONS SHOULD BE FOLLOWED.

*ALL FORMS OF MULCH MUST BE ANCHORED TO PREVENT DISPLACEMENT BY WIND AND/OR WATER.

MULCH APPLICATION

- APPLY MULCH AT THE RECOMMENDED RATE SHOWN IN TABLE 1.
- SPREAD THE MULCH MATERIAL UNIFORMLY BY HAND, HAYFORK, MULCH BLOWER, OR HYDRAULIC MULCH MACHINE. AFTER SPREADING, NO MORE THAN 25 PERCENT OF THE GROUND SHOULD BE VISIBLE.
- ANCHOR STRAW OR HAY MULCH IMMEDIATELY AFTER APPLICATION. THE MULCH CAN BE ANCHORED USING ONE OF THE METHODS LISTED BELOW:
 - CRIMP WITH A MULCH ANCHORING TOOL, A WEIGHTED FARM DISK WITH DULL SERRATED BLADES SET STRAIGHT, OR TRACK CLEATS OF A BULLDOZER.
 - APPLY HYDRAULIC MULCH WITH SHORT CELLULOSE FIBERS.
 - APPLY A LIQUID TACKIFIER, OR
 - COVER WITH NETTING SECURED BY STAPLES.

MULCH MAINTENANCE

- INSPECT WITHIN 24 HOURS OF EACH RAIN EVENT AND AT LEAST ONCE EVERY SEVEN CALENDAR DAYS.
- CHECK FOR EROSION OR MOVEMENT OF MULCH; REPAIR DAMAGED AREAS, RESEED, APPLY NEW MULCH AND ANCHOR THE MULCH IN PLACE.
- CONTINUE INSPECTIONS UNTIL VEGETATION IS FIRMLY ESTABLISHED.
- IF EROSION IS SEVERE OR RECURRING, USE EROSION CONTROL BLANKETS OR OTHER MORE SUBSTANTIAL STABILIZATION METHODS TO PROTECT THE AREA.

TABLE 1. PERMANENT SEEDING RECOMMENDATIONS

THIS TABLE PROVIDES SEVERAL SEED MIXTURE OPTIONS. ADDITIONAL SEED MIXTURES ARE AVAILABLE COMMERCIALY. WHEN SELECTING A MIXTURE, CONSIDER INTENDED LAND USE AND SITE CONDITIONS, INCLUDING SOIL PROPERTIES (E.G., SOIL pH AND DRAINAGE), SLOPE ASPECT, AND THE TOLERANCE OF EACH SPECIES TO SHADE AND DROUGHT.

OPEN LOW-MAINTENANCE AREAS (REMAINING IDLE MORE THAN SIX MONTHS)

SEED MIXTURES	RATE PER ACRE PURE LIVE SEED	OPTIMUM SOIL pH
1. PERENNIAL RYEGRASS -WHITE CLOVER*	70 LBS. 2 LBS.	5.6 TO 7.0
2. PERENNIAL RYEGRASS -TALL FESCUE**	70 LBS. 50 LBS.	5.6 TO 7.0
3. TALL FESCUE** -WHITE CLOVER*	70 LBS. 2 LBS.	5.5 TO 7.5

STEEP BANKS AND CUTS, LOW-MAINTENANCE AREAS (NOT MOWED)

SEED MIXTURES	RATE PER ACRE PURE LIVE SEED	OPTIMUM SOIL pH
1. SMOOTH BROME GRASS -RED CLOVER*	35 LBS. 20 LBS.	5.5 TO 7.0
2. TALL FESCUE** -WHITE CLOVER*	50 LBS. 2 LBS.	5.5 TO 7.5
3. TALL FESCUE** -RED CLOVER*	50 LBS. 20 LBS.	5.5 TO 7.5
4. ORCHARD GRASS -RED CLOVER* -WHITE CLOVER*	30 LBS. 20 LBS. 2 LBS.	5.6 TO 7.0
5. CROWNVEITCH* -TALL FESCUE**	12 LBS. 30 LBS.	5.6 TO 7.0

LAWNS AND HIGH-MAINTENANCE AREAS

SEED MIXTURES	RATE PER ACRE PURE LIVE SEED	OPTIMUM SOIL pH
1. BLUEGRASS	140 LBS.	5.5 TO 7.0
2. PERENNIAL RYEGRASS (TURF TYPE)	90 LBS. 60 LBS.	5.6 TO 7.0
3. TALL FESCUE (TURF TYPE)** -BLUEGRASS	170 LBS. 30 LBS.	5.6 TO 7.5

CHANNELS AND AREAS OF CONCENTRATED FLOW

SEED MIXTURES	RATE PER ACRE PURE LIVE SEED	OPTIMUM SOIL pH
1. PERENNIAL RYEGRASS -WHITE*	150 LBS. 2 LBS.	5.5 TO 7.0
2. KENTUCKY BLUEGRASS -SMOOTH BROMEGRASS -SWITCHGRASS -TIMOTHY -PERENNIAL RYEGRASS -WHITE CLOVER**	20 LBS. 10 LBS. 3 LBS. 4 LBS. 10 LBS. 2 LBS.	5.5 TO 7.5
3. TALL FESCUE* -WHITE CLOVER**	150 LBS. 2 LBS.	5.5 TO 7.5
4. TALL FESCUE** -PERENNIAL RYEGRASS -KENTUCKY BLUEGRASS	150 LBS. 20 LBS. 20 LBS.	5.5 TO 7.5

*FOR BEST RESULTS: (A) LEGUME SEED SHOULD BE INOCULATED; (B) SEEDING MIXTURES CONTAINING LEGUMES SHOULD PREFERABLY BE SPRING-SEEDED, ALTHOUGH THE GRASS MAY BE FALL-SEEDED AND THE LEGUME FROST-SEEDED; AND (C) IF LEGUMES ARE FALL-SEEDED, DO SO IN EARLY FALL.

**TALL FESCUE PROVIDES LITTLE COVER FOR, AND MAY BE TOXIC TO SOME SPECIES OF WILDLIFE. THE INDIANA DEPARTMENT OF NATURAL RESOURCES RECOGNIZES THE NEED FOR ADDITIONAL RESEARCH ON ALTERNATIVES SUCH AS BUFFALOGRASS, ORCHARDGRASS, SMOOTH BROMEGRASS, AND SWITCHGRASS. THIS RESEARCH, IN CONJUNCTION WITH DEMONSTRATION AREAS, SHOULD FOCUS ON EROSION CONTROL CHARACTERISTICS, WILDLIFE TOXICITY, TURF DISABILITY, AND DROUGHT RESISTANCE.

NOTES:

- AN OAT OR WHEAT COMPANION OR NURSE CROP MAY BE USED WITH ANY OF THE ABOVE PERMANENT SEEDING MIXTURES, AT THE FOLLOWING RATES:
 - SPRING OATS – ONE-FOURTH TO THREE-FOURTHS BUSHEL PER ACRE
 - WHEAT – NO MORE THAN ONE-HALF BUSHEL PER ACRE
- A HIGH POTENTIAL FOR FERTILIZER, SEED, AND MULCH TO WASH EXISTS ON STEEP BANKS, CUTS, AND IN CHANNELS AND AREAS OF CONCENTRATED FLOW.

MULCH SPECIFICATIONS

MATERIALS

TABLE 1. SLOPE STEEPNESS RESTRICTIONS

MATERIAL*	RATE PER ACRE	COMMENTS
STRAW OR HAY	2 TONS	SHOULD BE DRY, FREE OF UNDESIRABLE SEEDS. SPREAD BY HAND OR MACHINE. MUST BE CRIMPED OR ANCHORED (SEE TABLE 2).
WOOD FIBER OR CELLULOSE	1 TON	APPLY WITH A HYDRAULIC MULCH MACHINE AND USE WITH TACKING AGENT.

*MULCHING IS NOT RECOMMENDED IN CONCENTRATED FLOWS. CONSIDER EROSION CONTROL BLANKETS OR OTHER STABILIZATION METHODS.

COVERAGE

- THE MULCH SHOULD HAVE A UNIFORM DENSITY OF AT LEAST 75 PERCENT OVER THE SOIL SURFACE.

ANCHORING

TABLE 2. MULCH ANCHORING METHODS

ANCHORING METHOD*	HOW TO APPLY
MULCH ANCHORING TOOL OR FARM DISK (DULL, SERRATED, AND BLADES SET STRAIGHT)	CRIMP OR PUNCH THE STRAW OR HAY TWO TO FOUR INCHES INTO THE SOIL. OPERATE MACHINERY ON THE CONTOUR OF THE SLOPE.
CLEATING WITH DOZER TRACKS	OPERATE DOZER UP AND DOWN SLOPE TO PREVENT FORMATION OF RILLS BY DOZER CLEATS.
WOOD HYDROMULCH FIBERS	APPLY ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
SYNTHETIC TACKIFIERS, BINDERS, OR SOIL STABILIZERS	APPLY ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
NETTING (SYNTHETIC OR BIODEGRADABLE MATERIAL)	INSTALL NETTING IMMEDIATELY AFTER APPLYING MULCH. ANCHOR NETTING WITH STAPLES. EDGES OF NETTING STRIPS SHOULD OVERLAP WITH EACH UP-SLOPE STRIP OVERLAPPING FOUR TO SIX INCHES OVER THE ADJACENT DOWN-SLOPE STRIP. BEST SUITED TO SLOPE APPLICATIONS. IN MOST INSTANCES, INSTALLATION DETAILS ARE SITE SPECIFIC, SO MANUFACTURER'S RECOMMENDATIONS SHOULD BE FOLLOWED.

*ALL FORMS OF MULCH MUST BE ANCHORED TO PREVENT DISPLACEMENT BY WIND AND/OR WATER.

MULCH APPLICATION

- APPLY MULCH AT THE RECOMMENDED RATE SHOWN IN TABLE 1.
- SPREAD THE MULCH MATERIAL UNIFORMLY BY HAND, HAYFORK, MULCH BLOWER, OR HYDRAULIC MULCH MACHINE. AFTER SPREADING, NO MORE THAN 25 PERCENT OF THE GROUND SHOULD BE VISIBLE.
- ANCHOR STRAW OR HAY MULCH IMMEDIATELY AFTER APPLICATION. THE MULCH CAN BE ANCHORED USING ONE OF THE METHODS LISTED BELOW:
 - CRIMP WITH A MULCH ANCHORING TOOL, A WEIGHTED FARM DISK WITH DULL SERRATED BLADES SET STRAIGHT, OR TRACK CLEATS OF A BULLDOZER.
 - APPLY HYDRAULIC MULCH WITH SHORT CELLULOSE FIBERS.
 - APPLY A LIQUID TACKIFIER, OR
 - COVER WITH NETTING SECURED BY STAPLES.

MULCH MAINTENANCE

- INSPECT WITHIN 24 HOURS OF EACH RAIN EVENT AND AT LEAST ONCE EVERY SEVEN CALENDAR DAYS.
- CHECK FOR EROSION OR MOVEMENT OF MULCH; REPAIR DAMAGED AREAS, RESEED, APPLY NEW MULCH AND ANCHOR THE MULCH IN PLACE.
- CONTINUE INSPECTIONS UNTIL VEGETATION IS FIRMLY ESTABLISHED.
- IF EROSION IS SEVERE OR RECURRING, USE EROSION CONTROL BLANKETS OR OTHER MORE SUBSTANTIAL STABILIZATION METHODS TO PROTECT THE AREA.

SEEDING SPECIFICATIONS

SEEDBED PREPARATION

- GRADE AND APPLY SOIL AMENDMENTS.

SEEDING FREQUENCY

- SEED FINAL GRADED AREAS DAILY WHILE SOIL IS STILL LOOSE AND MOIST.

DENSITY OF VEGETATIVE COVER

- NINETY PERCENT OR GREATER OVER THE SOIL SURFACE.

MATERIALS

- SOIL AMENDMENTS – SELECT MATERIALS AND RATES AS DETERMINED BY A SOIL TEST (CONTACT YOUR COUNTY SOIL AND WATER CONSERVATION DISTRICT OR COOPERATIVE EXTENSION OFFICE FOR ASSISTANCE AND SOIL INFORMATION, INCLUDING AVAILABLE SOIL TESTING SERVICES) OR 400 TO 600 POUNDS OF 12-12-12 ANALYSIS FERTILIZER, OR EQUIVALENT, CONSIDER THE USE OF REDUCED PHOSPHOROUS APPLICATION WHERE SOIL TESTS INDICATE ADEQUATE PHOSPHOROUS LEVELS IN THE SOIL PROFILE.
- SEED – SELECT APPROPRIATE PLANT SPECIES SEED OR SEED MIXTURES ON THE BASIS OF SOIL TYPE, SOIL pH, REGION OF THE STATE, TIME OF YEAR, AND INTENDED LAND USE OF THE AREA TO BE SEED (SEE TABLE 1).
- MULCH – STRAW, HAY, WOOD FIBER, ETC. (TO PROTECT SEEDBED, RETAIN MOISTURE, AND ENCOURAGE PLANT GROWTH). ANCHORED TO PREVENT REMOVAL BY WIND OR WATER OR COVERED WITH PREMANUFACTURED EROSION CONTROL BLANKETS.

SEEDING APPLICATIONS

SITE PREPARATION

- GRADE THE SITE TO ACHIEVE POSITIVE DRAINAGE.
- ADD TOPSOIL TO ACHIEVE NEEDED DEPTH FOR ESTABLISHMENT OF VEGETATION. (COMPOST MATERIAL MAY BE ADDED TO IMPROVE SOIL MOISTURE HOLDING CAPACITY, SOIL FRIABILITY, AND NUTRIENT AVAILABILITY.)

SEEDBED PREPARATION

- TEST SOIL TO DETERMINE pH AND NUTRIENT LEVELS.
- APPLY SOIL AMENDMENTS AS RECOMMENDED BY THE SOIL TEST AND WORK INTO THE UPPER TWO TO FOUR INCHES OF SOIL. IF TESTING IS NOT DONE, APPLY 400 TO 600 POUNDS PER ACRE OF 12-12-12 ANALYSIS FERTILIZER, OR EQUIVALENT.
- TILL THE SOIL TO OBTAIN A UNIFORM SEEDBED. USE A DISK OR RAKE, OPERATED ACROSS THE SLOPE, TO WORK THE SOIL AMENDMENTS INTO THE UPPER TWO TO FOUR INCHES OF THE SOIL.

SEEDING

OPTIMUM SEEDING DATES ARE MARCH 1 TO MAY 10 AND AUGUST 10 TO SEPTEMBER 30. PERMANENT SEEDING DONE BETWEEN MAY 10 AND AUGUST 10 MAY NEED TO BE IRRIGATED. SEEDING OUTSIDE OR BEYOND OPTIMUM SEEDING DATES IS STILL POSSIBLE WITH THE UNDERSTANDING THAT RESEEDING OR OVER-SEEDING MAY BE REQUIRED IF ADEQUATE SURFACE COVER IS NOT ACHIEVED. RESEEDING OR OVERSEEDING CAN BE EASILY ACCOMPLISHED IF THE SOIL SURFACE REMAINS WELL PROTECTED WITH MULCH.

- SELECT A SEEDING MIXTURE AND RATE FROM TABLE 1. SELECT SEED MIXTURE BASED ON SITE CONDITIONS, SOIL pH, INTENDED LAND USE, AND EXPECTED LEVEL OF MAINTENANCE.
- APPLY SEED UNIFORMLY WITH A DRILL OR CULTIPACKER SEEDER OR BY BROADCASTING. PLANT OR COVER THE SEED TO A DEPTH OF ONE-FOURTH TO ONE-HALF INCH. IF DRILLING OR BROADCASTING THE SEED, ENSURE GOOD SEED-TO-SOIL CONTACT BY FIRING, THE SEEDBED WITH A ROLLER OR CULTIPACKER AFTER COMPLETING SEEDING OPERATIONS. (IF SEEDING IS DONE WITH A HYDROSEEDER, FERTILIZER AND MULCH CAN BE APPLIED WITH THE SEED IN A SLURRY MIXTURE.)
- MULCH ALL SEEDING AREAS AND USE APPROPRIATE METHODS TO ANCHOR THE MULCH IN PLACE. CONSIDER USING EROSION CONTROL BLANKETS ON SLOPING AREAS AND CONVEYANCE CHANNELS.

SEEDING MAINTENANCE

- INSPECT WITHIN 24 HOURS OF EACH RAIN EVENT AND AT LEAST ONCE EVERY SEVEN CALENDAR DAYS UNTIL THE VEGETATION IS SUCCESSFULLY ESTABLISHED.
- CHARACTERISTICS OF A SUCCESSFUL STAND INCLUDE VIGOROUS DARK GREEN OR BLuish-GREEN SEEDLINGS WITH A UNIFORM VEGETATIVE COVER DENSITY OF 90 PERCENT OR MORE.
- CHECK FOR EROSION OR MOVEMENT OF MULCH.
- REPAIR DAMAGED, BARE, GULLIED, OR SPARSELY VEGETATED AREAS AND THEN FERTILIZE, RESEED, AND APPLY AND ANCHOR MULCH.
- IF PLANT COVER IS SPARSE OR PATCHY, EVALUATE THE PLANT MATERIALS CHOSEN, SOIL FERTILITY, MOISTURE CONDITION, AND MULCH APPLICATION; REPAIR AFFECTED AREAS EITHER BY OVERSEEDING OR PREPARING A NEW SEEDBED AND RESEEDING. APPLY AND ANCHOR MULCH ON THE NEWLY SEEDING AREAS.
- IF VEGETATION FAILS TO GROW, CONSIDER SOIL TESTING TO DETERMINE SOIL pH OR NUTRIENT DEFICIENCY PROBLEMS. (CONTACT YOUR SOIL AND WATER CONSERVATION DISTRICT OR COOPERATIVE EXTENSION OFFICE FOR ASSISTANCE.)
- IF ADDITIONAL FERTILIZATION IS NEEDED TO GET A SATISFACTORY STAND, DO SO ACCORDING TO SOIL TEST RECOMMENDATIONS.
- ADD FERTILIZER THE FOLLOWING GROWING SEASON. FERTILIZE ACCORDING TO SOIL TEST RECOMMENDATIONS.
- FERTILIZE TURF AREAS ANNUALLY. APPLY FERTILIZER IN A SPLIT APPLICATION. FOR COOL-SEASON GRASSES, APPLY ONE-HALF OF THE FERTILIZER IN LATE SPRING AND ONE-HALF IN EARLY FALL. FOR WARM-SEASON GRASSES, APPLY ONE-THIRD IN EARLY SPRING, ONE-THIRD IN LATE SPRING, AND THE REMAINING ONE-THIRD IN MIDDLE SUMMER.

PERMANENT SEEDING WITH MULCH

NOT TO SCALE (REV. 11/13)

TEMPORARY SEEDING WITH MULCH

NOT TO SCALE (REV. 11/13)



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Thieneman Construction Office Building

17219 FOUNDATION PKWY.
WESTFIELD, INDIANA

APPROVAL PENDING
NOT FOR CONSTRUCTION



CERTIFIED BY

ISSUANCE INDEX

DATE:	10/31/2014
PROJECT PHASE:	DEVELOPMENT PLANS

REVISION SCHEDULE

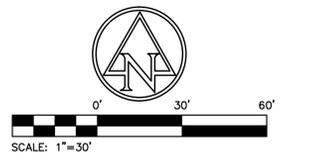
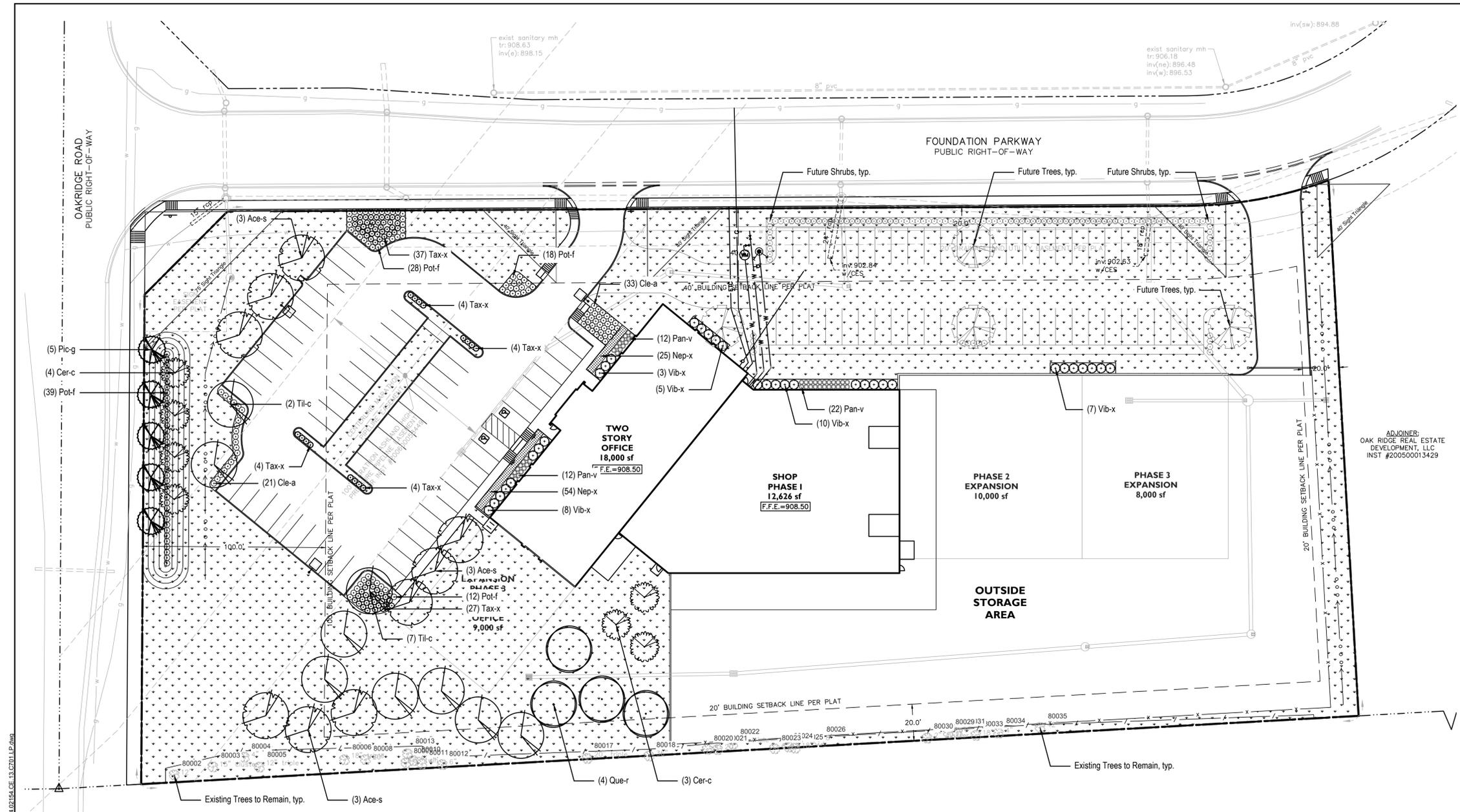
NO.	DESCRIPTION	DATE
△	TAC COMMENTS	12/5/14

Project Number 2014.02154

EROSION CONTROL DETAILS

C502

DRAWING FILE: P:\2014\02154\0_Drawing\ChalConstruction Documents\2014.02154_CE_10.C501_C502_ECD.dwg
PLOT DATE: 12/2/2014 7:10 AM
EDIT DATE: 11/24/2014
EDIT SCALE: 1:1
EDITED BY: JCRIBELAR



GENERAL LANDSCAPE & PLANTING NOTES

- Plant material to be installed and maintained by a qualified and experienced landscape installer.
- All materials are subject to the approval of the Landscape Architect and Owner at any time. Landscape Architect to inspect all plant locations and plant bed conditions prior to installation. Stake all plant locations for review and approval by the Landscape Architect before planting. On-site adjustments may be required. Plants are to be freshly dug. Transporting of plants shall be done in a manner as to not destroy the natural shape, compromise the health, or alter the characteristics of plant materials.
- Rootballs shall meet or exceed size standards as set forth in American Standards for Nursery Stock. MAIN LEADERS OF ALL TREES SHALL REMAIN INTACT. Remove from the site any plant material that turns brown or defoliates within five (5) days after planting. Replace immediately with approved, specified material.
- Plant counts indicated on drawings are for Landscape Architect's use only. Contractor shall make own plant quantity takeoffs using drawings, specifications, and plant schedule requirements (i.e., spacing), unless otherwise directed by Landscape Architect. Contractor to verify bed measurements and install appropriate quantities as governed by plant spacing per schedule.
- All plant beds shall receive 3" minimum of genuine shredded hardwood bark mulch (unless otherwise noted). Apply pre-emergent herbicide as directed by the manufacturer prior to installing mulch. Seed all areas disturbed by construction activities that are not otherwise noted to receive pavement, planting bed, or other treatment.
- The Contractor shall install and/or amend topsoil in all proposed bed areas to meet ASTM D5268 standards. Landscaper shall verify depth and quality of topsoil prior to plant installation. A minimum of 4" of topsoil is required for lawn areas; 12" for plant beds. Topsoil sources shall include the reuse of surface soil stockpiled on site, clean of roots, plants, sod, stones, clay lumps, and other extraneous or foreign materials larger than 1". Supplement with imported topsoil from off-site sources when quantities are insufficient. Do not obtain supplemental topsoil from agricultural land, bogs, or marshes. Inorganic amendments, organic amendments, and fertilizers shall be used to amend topsoil as needed for long-term plant health.
- Verify all utility locations in the field prior to beginning work. Repair all damaged utilities to satisfaction of the Owner and Operating Authority at no additional cost.
- Install all plant material in accordance with all local codes and ordinances. Coordinate with the Owner to obtain any required permits necessary to complete work. All workmanship and materials shall be guaranteed by the Contractor for a period of one (1) calendar year after Final Acceptance.
- Maintain all plant material for a three (3) month period from date of Substantial Completion. Maintenance shall include pruning, cultivating, watering, weeding, fertilizing, restoring plant saucers, spraying for disease and insects, and replacing tree wrappings. Recommended long-term maintenance procedures shall be provided to the Owner before expiration of this period.
- Satisfactory Seeded Lawn: At end of maintenance period, a healthy, uniform, close stand of grass has been established, free of weeds and surface irregularities, with coverage exceeding 90 percent over any 10 sq. ft. (0.92 sq. m) and bare spots not exceeding 3 by 3 inches. Reestablish lawns that do not comply with requirements and continue maintenance until lawns are fully satisfactory to the Owner.

ADJOINER:
OAK RIDGE REAL ESTATE
DEVELOPMENT, LLC
INST #200500013429



17241 Foundation Parkway | Suite 100
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ISSUANCE INDEX	
DATE:	10/31/2014
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REVISION SCHEDULE		
NO.	DESCRIPTION	DATE

Project Number 2014.02154

PLANTING PLAN

C701

NOTE: Contractor shall protect existing trees to remain throughout construction. Refer to Tree Protection Detail on Sheet C702.

NOTE: All trees shall be planted a minimum of 4' from pavement and 10' from underground utilities.

Thieneman Tree Survey									
Number	Species	Tree Type	DBH (inches)	DBH Size 2	DBH Size 3	Condition and Notes	To Remain	Credit	
800-02	Silver Maple	Shade	12			good	yes	1	
800-03	Silver Maple	Shade	150"			fair - 10 branches at 15" each	yes	1	
800-04	Cherry	Shade	4			good	yes	1	
800-05	Mulberry	Shade	12	8	15	poor - triple	yes	0	
800-06	Mulberry	Shade	18	12	18	poor - triple	yes	0	
800-08	Crab	Ornamental	20			poor - clump form	yes	0	
800-09	Cherry	Shade	6	6		fair - double	yes	1	
800-10	Cherry	Shade	4			good	yes	1	
800-11	Unknown Crab	Ornamental	4			poor	yes	0	
800-12	Unknown clump	Shade	6			poor	yes	0	
800-13	Silver Maple	Shade	4	4		good - double	yes	1	
800-17	Silver Maple	Shade	60			good - triple	yes	1	
800-18	Silver Maple	Shade	36			good	yes	1	
800-20	Uden	Shade	4			good	yes	1	
800-21	Walnut	Shade	20			good	yes	1	
800-22	Hackberry	Shade	4	4	4	triple	yes	1	
800-23	Hackberry	Shade	6			good	yes	1	
800-24	Linden	Shade	8			good	yes	1	
800-25	Walnut	Shade	18			fruit present	yes	1	
800-26	Hackberry	Shade	8			good	yes	1	
800-29	Cherry	Shade	10			good	yes	1	
800-30	Uden	Shade	4			poor	yes	0	
800-31	Uden	Shade	6			good	yes	1	
800-33	Hackberry	Shade	4			poor	yes	0	
800-34	Walnut	Shade	4			too young for fruit - good	yes	1	
800-35	Uden	Shade	42			good	yes	1	
Total									19

LANDSCAPE ORDINANCE REQUIREMENTS
PUD - Industrial

MINIMUM LOT LANDSCAPING REQUIREMENTS:
4.44 Acres
Industrial - 5 Shade Trees, 5 Ornamental or Evergreen Trees, and 25 Shrubs per acre required
4.44 x 5 = 22 Shade Trees Required, 22 Provided (plus 4 Future Trees)
4.44 x 5 = 22 Ornamental or Evergreen Trees Required, 12 Provided plus 10 Existing Shade Trees to Remain (800-02, 800-03, 800-04, 800-09, 800-10, 800-13, 800-17, 800-18, 800-20, 800-21)
4.44 x 25 = 111 Shrubs Required, 264 Provided

FOUNDATION PLANTINGS:
Plant materials required approximately every 40' along building facades over 80' long
Plant materials required along Front Building Façade at a minimum of 1 shrub or ornamental tree / 12 LF
Northwest Façade: 150 LF / 12 LF = 13 Shrubs Required and Provided
Northeast Façade: 60 LF / 12 LF = 5 Shrubs Required and Provided
Southwest Façade: None Required per Jesse Pohlman email dated 11/25/14
North Façade: 79 LF / 12 LF = 7 Shrubs Required and Provided
North Side of Outside Storage Area: 264 LF / 40 LF = 7 Shrubs Required and Provided
East Side of Outside Storage Area: none required per PUD amendment
South Side of Outside Storage Area: none required per PUD amendment
West Side of Outside Storage Area: 94 LF / 40 LF = 3 Ornamental Trees Required and Provided

EXTERNAL STREET FRONTAGE LANDSCAPING REQUIREMENTS:
3 Shade or Evergreen Trees, 2 Ornamental Trees, and 25 Shrubs / 100 LF
Foundation Parkway: Utilities and Utility Easements along entire frontage, no trees provided
Oakridge Road: 267 LF - 93 LF Gas Easement - 20 LF Sign Easement = 154 LF
154 LF / 100 LF = 5 Shade or Evergreen Trees, 4 Ornamental Trees, and 39 Shrubs Required and Provided

BUFFER YARD REQUIREMENTS:
West: See External Street Frontage Requirements, no buffer yard required
North: Industrial, no buffer yard required
East: Industrial, no buffer yard required
South: Industrial, no buffer yard required

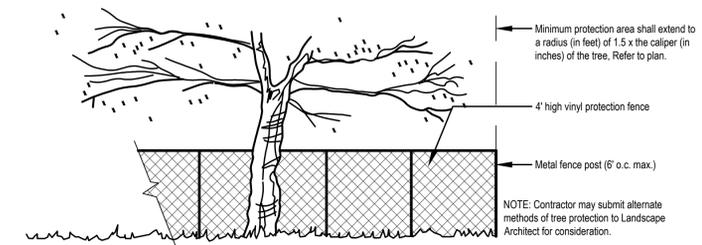
INTERIOR PARKING LOT LANDSCAPING:
21,975 SF of Parking Lot x 10% = 2198 SF of island space required and provided
1 Tree and 4 Shrubs per parking island required
6 Trees and 24 Shrubs required, 6 Trees provided except within Gas and Utility Easements, then trees located elsewhere on site

PERIMETER PARKING LOT LANDSCAPING:
1 Tree / 30 LF Required
475 LF / 30 LF = 16 Trees Required and Provided except within Gas and Utility Easements, then trees located elsewhere on site
1 Shrub / 3 LF Required
475 LF / 3 LF = 159 Shrubs Required and Provided, clumped

CAUTION !!
THE LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE BASED UPON ABOVE GROUND EVIDENCE (including, but not limited to, manholes, inlets, valves, and marks made upon the ground by others) AND ARE SPECULATIVE IN NATURE. THERE MAY ALSO BE OTHER EXISTING UNDERGROUND UTILITIES FOR WHICH THERE IS NO ABOVE GROUND EVIDENCE OR FOR WHICH NO ABOVE GROUND EVIDENCE WAS OBSERVED. THE EXACT LOCATIONS OF SAID EXISTING UNDERGROUND UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO ANY AND ALL CONSTRUCTION.
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- INDIANA UNDERGROUND -

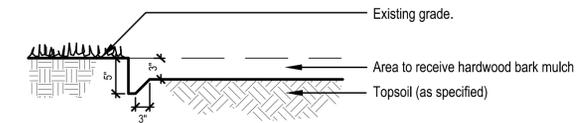
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EDITED BY: PROCTOR
PLOT DATE: 12/23/2014 2:16 PM
PLOT SCALE: 1:2,500

PLANT SCHEDULE					
Symbol	Botanical Name	Common Name	Size	Container	Notes
TREES					
Ace-s	Acer saccharum 'Legacy'	Legacy Sugar Maple	2" cal., min. 8' ht	B&B	full, matched
Cer-c	Cercis canadensis	Redbud	2" cal.	B&B	multi-stemmed
Pic-g	Picea glauca 'Densata'	Black Hills Spruce	min. 6' ht.	B&B	symmetrical, full
Que-r	Quercus rubra	Red Oak	2" cal., min. 8' ht	B&B	dug in spring, symmetrical
Til-c	Tilia cordata 'Greenspire'	Greenspire Linden	2" cal., min. 8' ht	B&B	full, matched
SHRUBS					
Cle-a	Clethra alnifolia 'Hummingbird'	Hummingbird Summersweet	24"	container	space @ 3'-0" o.c.
Pot-f	Potentilla fruticosa 'Goldfinger'	Goldfinger Potentilla	24"	container	space @ 3'-0" o.c. allow to mass
Tax-x	Taxus x media 'Densiformis'	Dense Spreading Yew	24"	container	space @ 3'-0" o.c. allow to mass
Vib-x	Viburnum x juddii	Judd Viburnum	30"	container	space @ 5'-0" o.c.
GROUNDCOVERS AND GRASSES					
Nep-x	Nepeta x faassenii 'Walker's Low'	Walker's Low Nepeta	#1	pot	space @ 24" o.c., triangular spacing
Pan-v	Panicum virgatum 'Heavy Metal'	Heavy Metal Switch Grass	#2	pot	space @ 2'-6" o.c.



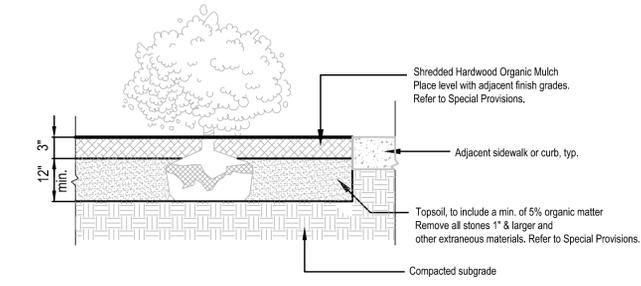
TREE PROTECTION FENCE

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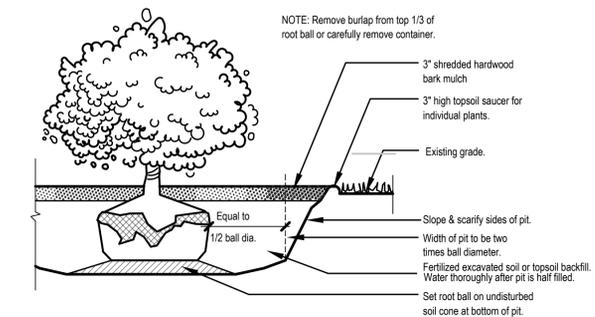
SPADE EDGE

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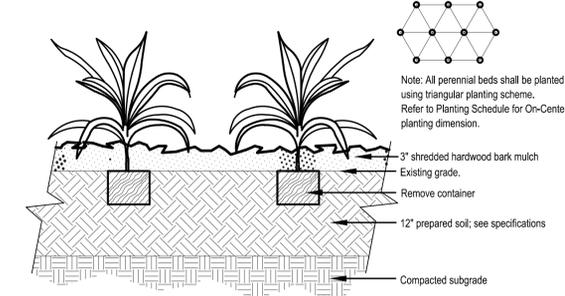
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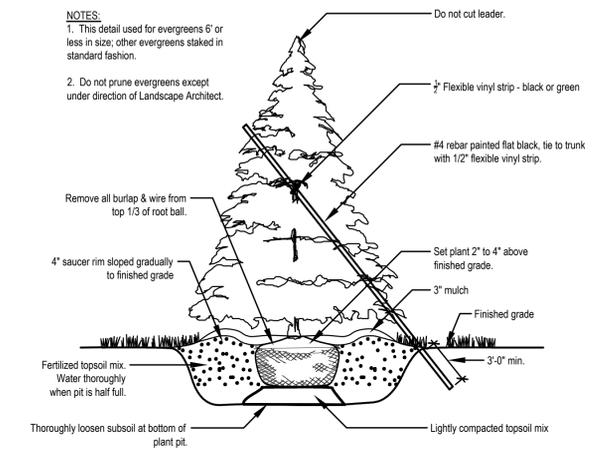
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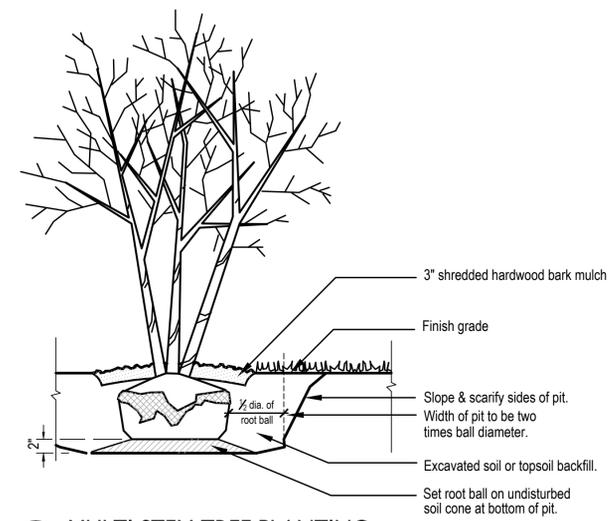
PERENNIAL PLANTING

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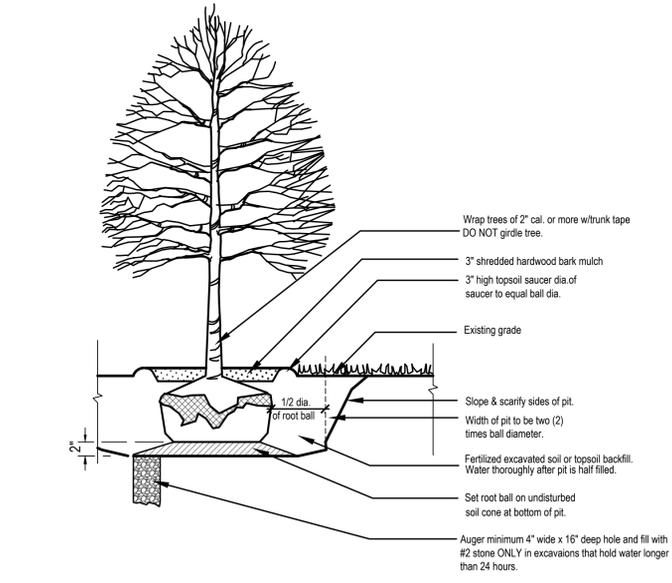
EVERGREEN TREE PLANTING

Not to Scale



MULTI-STEM TREE PLANTING

Not to Scale



TREE PLANTING

Not to Scale

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AMERICAN STRUCTUREPOINT
INC.

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CONTEXT
landscape architecture

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Project Number 2014.02154

PLANTING DETAILS

C702

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EXISTING LEGEND

- FIRE HYDRANT
- GUY WIRE
- MAILBOX
- POST
- LIGHT POLE
- POWER POLE
- SANITARY MANHOLE
- TEMPORARY BENCH MARK
- TEST HOLE
- TELEPHONE MANHOLE
- TELEPHONE MARKER SIGN
- TELEPHONE PEDESTAL
- TREE
- WELL
- BURIED FIBER OPTIC LINE
- OVERHEAD ELECTRIC LINE
- TOP OF RIM ELEVATION
- INVERT ELEVATION
- PLASTIC PIPE
- CORRUGATED METAL PIPE



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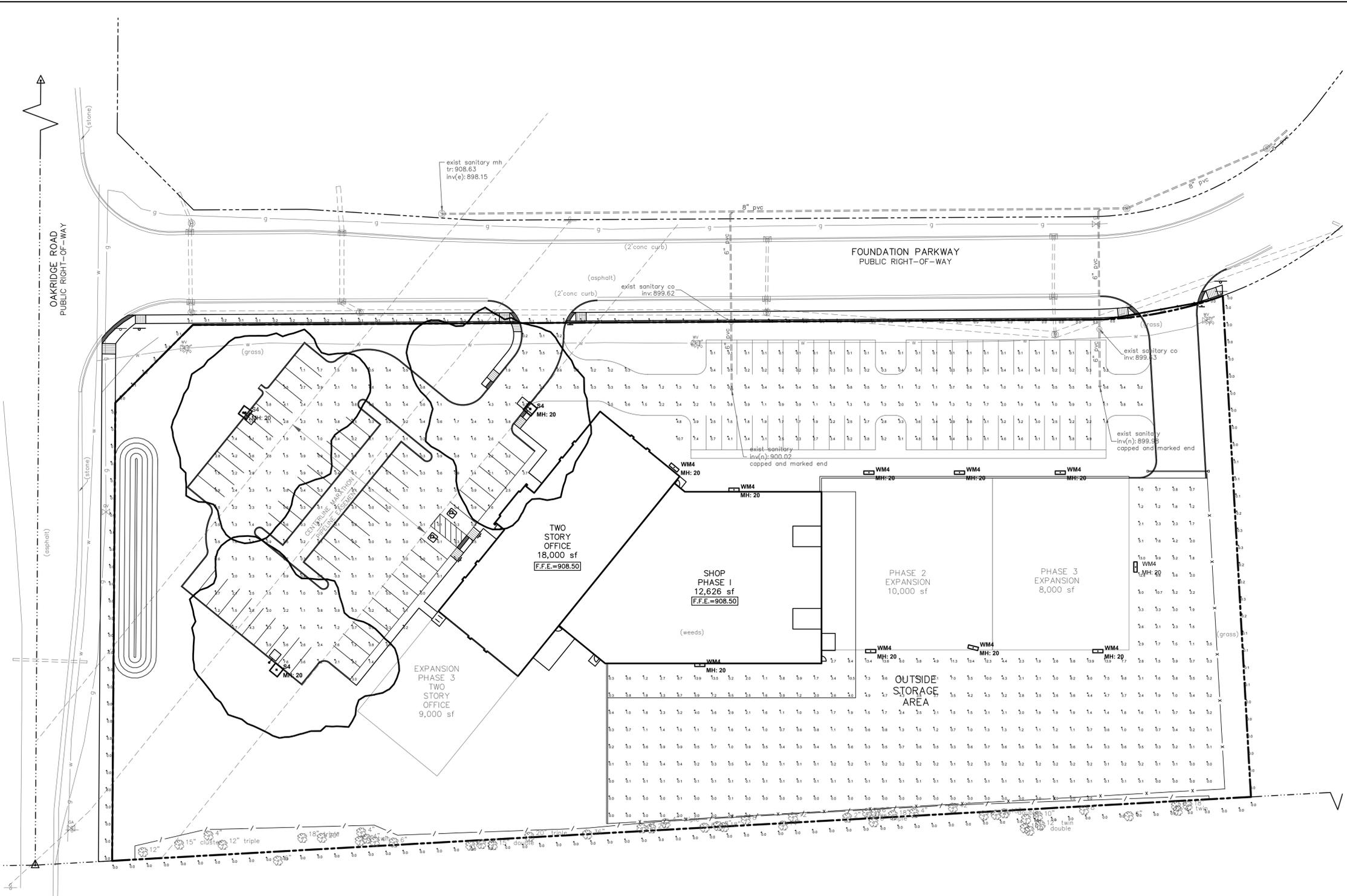
NO.	DESCRIPTION	DATE
1	TAC COMMENTS	12/5/14

Project Number 2014.02154

PHOTOMETRIC PLAN

C801

CAUTION !!
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CALL TOLL FREE
- INDIANA UNDERGROUND -



Luminaire Schedule							
Symbol	Qty	Label	Arrangement	Total Lamp Lumens	LLF	Description	Lum. Watts
+	3	S4	SINGLE	40000	0.840	PTH-FT-400-PSMHR-F	452
-	10	WM4	WALL MOUNT	40000	0.840	GBWM-FT-400-PSMHR-F	452

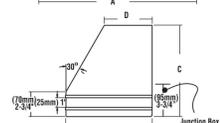
Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
CalcPts	Illuminance	Fc	1.41	11.4	0.0	N.A.	N.A.
OUTSIDE STORAGE YARD	Illuminance	Fc	2.02	13.9	0.0	N.A.	N.A.
PROPERTY LINE	Illuminance	Fc	0.03	0.3	0.0	N.A.	N.A.

PLOT DATE: 12/29/2014 7:12 AM
 PLOT SCALE: 1:2500
 EDIT DATE: 12/24/2014
 EDITED BY: JCRIBELAR
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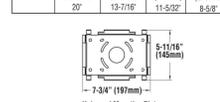
GREENBRIAR® WALL SCENCE (Various reflectors are protected by U.S. Patent No. 6,464,378)



Shown with optional decal striping



Small	A	B	C	D
(144mm)	17-5/8"	9-5/8"	19-1/2"	5-3/8"
(508mm)	20"	13-7/16"	11-5/32"	8-5/8"



SHIPPING WEIGHTS - Greenbriar Wall Scence

Catalog Number	Est. Weight (kg/lbs.)	Length (mm/in.)	Width (mm/in.)	Height (mm/in.)
GBWM-HID	10/22 616/24.25	394/15.5	343/13.5	13.5
GBWM-HID	17/32 616/24.25	394/15.5	419/16.5	13.5
GBWM-CFL	8/17 616/24.25	394/15.5	363/14.3	13.5
GBWM-CFL	11/24 616/24.25	394/15.5	419/16.5	13.5



Project Name Thieneman Construction Fixture Type WM4
 Catalog # GBWM FT 400PSMHR F Voltage Color
 LSI INDUSTRIES INC.

HOUSING - The aluminum housing is available in two sizes and is a rectangular shape. All mounting hardware is stainless steel or electro-zinc plated steel.

WALL MOUNT - A galvanized-steel universal wall mounting plate easily mounts directly to a 4" octagonal or square junction box. An EPDM gasket is supplied to be installed between the mounting plate and junction box, sealing the junction box from entrance of water. The galvanized-steel universal plate allows the fixture to securely attach to the mounting plate using a unique clamping design which is locked into place with two hex-head screws. The universal plate permits the fixture to be mounted in the uplighting position (listed for damp locations) or downlighting position (listed for wet locations).

DOOR FRAME - The aluminum door frame with two stainless steel captive fasteners allows easy access into the fixture. A one piece extruded silicone gasket seals the door frame against the housing. The door swings open and is held in place by a retainer.

LENS/GASKET - A flat clear tempered glass lens, which is sealed to the door frame with EPDM gasketing, is standard. An optional polycarbonate lens is available on most Compact Fluorescent fixtures.

BALLASTS/ELECTRICAL COMPONENTS - Electrical components are factory-mounted in housing and prewired with voltage specific leads which extend out the back of the unit through a rubber grommet. This grommet prevents the entry of insects, dust, and moisture into the fixture. The need to open the fixture to make wiring connections is eliminated, thus making installation quick and easy. UL listed HID components with high-power factor ballasts rated for -20°F starting. Compact Fluorescent ballasts are Electronic Universal Voltage (120-277V 50/60 Hz) or 347V (60 Hz), 0°F starting. Compact Fluorescent fixtures with UE (Universal Electronic) voltage are available with an optional dimming ballast for multiple types of controls such as building lighting controls and occupancy sensors. Available battery back-up of BB (32° starting temperature) and CWB8 (0° starting temperature) are 120 or 277 voltage for U.S. applications for 26 watt through 70 watt lamps. Consult factory for available wattages and voltages for

use in Canada.

SOCKETS - HID lampholders are glazed porcelain, medium base for the small fixture and mogul base for the medium fixture, 4KV pulse rated. The Compact Fluorescent fixtures feature a one-piece thermoplastic socket.

LIGHT SOURCES - The fixture is designed to operate with horizontal Pulse-Start Metal Halide, Pulse-Start Metal Halide Reduced, Ceramic Metal Halide, Metal Halide, High Pressure Sodium, and single, double or triple Compact Fluorescent lamps. Lamps supplied as standard - HID (clear, shipped installed), and Compact Fluorescent (coated, 4100K).

EMERGENCY OPERATION - A variety of integral emergency options are available to comply with Life Safety Codes which require emergency lighting along the path of egress on the building's exterior, so building occupants can exit safely. Integral Emergency Battery Back-up options are available on Compact Fluorescent units. Emergency Quartz options are offered on HID units. Options for one or two 12 volt separate circuit(s), for use with up to 35 watt Halogen lamps) are available on both Compact Fluorescent and HID units.

REFLECTORS/DISTRIBUTION PATTERNS - Forward Throw (FTM, FT) and Type III (3) reflectors are available on small and medium. Wall Wash (WW) reflectors are also available on small. All are high performance, full cut distribution as defined by the IESNA (downlight position only). Photometric data is tested in accordance with IESNA guidelines.

FINISHES - Each fixture is finished with LSI's DuraGrip® polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling, and is guaranteed for five full years. Standard colors include bronze, black, platinum plus, white, satin verde green, metallic silver, and graphite.

DECAL STRIPING - LSI offers optional color-coordinated decals in 9 standard colors to accent the fixture. Decals are guaranteed for five years against peeling, cracking, or fading.

PHOTOMETRICS - Please visit our web site at www.lsi-industries.com for detailed photometric data.

GREENBRIAR® WALL SCENCE

LUMINAIRE ORDERING INFORMATION

TYPICAL ORDER EXAMPLE: **GBWM 3 400 PSMHR F 120 BRZ SQT**

Luminaire Prefix	Distribution	Lamp Wattage	Light Source	Lens	Line Voltage	Luminaire Finish	Options
GBWM (Small)	3 - Type III FT - Forward Throw WW - Wall Wash	50 70 150	CUH - Ceramic Metal Halide 150 Watt MH - Metal Halide 50, 70, 100, 150 Watt HPS - High Pressure Sodium 50, 70, 100, 150 Watt	F - Flat Clear Tempered Glass	120 208 240 277 347	BRZ - Bronze BLK - Black PLP - Platinum Plus WHT - White SVG - Satin Verde Green	PC1120 - Button-Type Photocell PC2208 - Button-Type Photocell PC2420 - Button-Type Photocell PC2727 - Button-Type Photocell PC3427 - Button-Type Photocell TP - Taper Flood PMA - Pole Mount Adaptor for use with square poles (for 5 or D180 mounting configurations only) Not compatible with TMH, BRZ, SVG or E22 options PMA-R - Pole Mount Adaptor for use with round poles (for 5 or D180 mounting configurations only) Not compatible with EMR, EMR2, ED or E22 options DM - CFL Control Voltage Dimming Ballast ⁹ C - Coated MH or PSMH Lamp except 250 PSMH SQT - Standard Quartz (Time Delay) ¹⁰ SQT - Standard Quartz (Non-Time Delay) ¹⁰ ED - Emergency Quartz (separate 120V circuit - HID only) ¹¹ BB - CFL Battery Back-up ¹² CWB8 - Cold Weather Battery Back-up ¹² EMR1 - One Emergency 12V Circuit Provision with 35 Watt Halogen Lamp ¹³ EMR1LL - One Emergency 12V Circuit Provision - Less Halogen Lamp ¹³ EMR2 - Two Emergency 12V Circuit Provisions with 35 Watt Halogen Lamp ¹³ EMR2LL - Two Emergency 12V Circuit Provisions - Less Halogen Lamp ¹³ LL - Less Lamp
	FTM - Forward Throw Medium	26 32 42	CF - Compact Fluorescent Single 26, 32, 42 Watt CF2 - Compact Fluorescent Double 26, 32, 42 Watt	F - Flat Clear Tempered Glass PC - Flat Clear Polycarbonate ⁴	120 208 240 277 347	UE - Universal Electronic (120/277V Voltage)	
	WW - Wall Wash	CF - Compact Fluorescent Single 26, 32, 42 Watt			347 ⁹		
GBWM (Medium)	3 - Type III FT - Forward Throw	250 320 400	PSMH - Pulse Start Metal Halide Single 37, 70 Watt 250, 320 Watt PSMH-R - Pulse Start Metal Halide Reduced 400 Watt HPS - High Pressure Sodium 250, 400 Watt	F - Flat Clear Tempered Glass PC - Flat Clear Polycarbonate ⁴	120 208 240 277 347 480	UE - Universal Electronic (120/277V/50/60Hz)	
	FTM - Forward Throw Medium	26 32 42 57 70	CF - Compact Fluorescent Single 26, 32, 42 Watt CF2 - Compact Fluorescent Double 26, 32, 42 Watt CF3 - Compact Fluorescent Triple 26, 32, 42 Watt	F - Flat Clear Tempered Glass PC - Flat Clear Polycarbonate ⁴	120 208 240 277 347 ⁹	UE - Universal Electronic (120/277V/50/60Hz)	
	WW - Wall Wash	CF - Compact Fluorescent Single 26, 32, 42 Watt			347 ⁹		

FOOTNOTES:

- 1- LSI MH must be used for downlight only.
- 2- Supplied with a 400-HPT transformer as standard. Also available with a 120/277 volt CWA transformer. Consult factory.
- 3- 50 Watt HPS is not available in TT or 347V.
- 4- FCC lens is not available with EMR options.
- 5- A polycarbonate lens is required on an Uplight Medium fixture in 70 CFL2 or 42 CFL3. The glass lens with Polycarbonate Shield (GBWM SLS) accessory must be ordered.
- 6- 347V CFL is not available with dimming ballast (DM) option. Consult factory for details.
- 7- Temproof Screws must be ordered separately. (See Accessory Ordering Information)
- 8- Use with 3" traditional ceiling pattern.
- 9- CFL Dimming Control by others.
- 10- HID lamp wattages 50 and 70 are supplied with a 55 watt, 120V quartz lamp. HID lamp wattages 100 through 150 are supplied with a 100 watt, 120V quartz lamp. HID lamp wattages of 250 & 400 are supplied with a 250 watt, 120V quartz lamp. 120V quartz lamp. E22 option is not compatible with EMR, PMA or PMA-R options.
- 11- Available on 10 watt maximum HID fixtures. HID lamp wattages 100 through 175 are supplied with two 50 watt, 120V quartz lamps. 250 through 400 watt HID lamps are supplied with two 100 watt, 120V quartz lamps. E22 option is not compatible with EMR, PMA or PMA-R options.
- 12- Battery Back-up available on single, double and triple 120 or 277 voltage specific units for U.S. applications. Please change Line Voltage of UE to 120 or 277 when ordering this option. On double and triple units, one lamp will be energized by Battery Back-up (BB) option. Consult factory for specific. Means of Egress job application compliance.
- 13- Temproof Screws must be ordered separately. (See Accessory Ordering Information)
- 14- Available on HID fixtures only. Fixing to be installed in a compatible junction box supplied by contractor. ++Fusing is available on HID Medium fixtures only. Fusing to be installed in a compatible junction box supplied by contractor. +++SW BLK not compatible with PMA or PMA-R option.

Color Decals

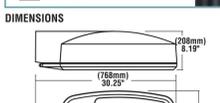
45 - Light Gold Metallic	55 - Black
20 - Charcoal Metallic	50 - White
94 - Blue Metallic	31 - Dark Red
59 - Dark Green	700 - Adec Silver Metallic
21 - Tomato Red	

ACCESSORY ORDERING INFORMATION (Accessories are field installed)

Description	Order Number	Description	Order Number
FK120 - Single Fusing	FK120+	GBWM PLS - Polycarbonate Shield for Small	172786
FK277 - Single Fusing	FK277+	GBWM PLS - Polycarbonate Shield for Medium	172782
DRK208-240 - Double Fusing	DRK208-240+	SW BLK - Surface Wiring Box	173158L+++
DRK480 - Double Fusing	DRK480+	SQT - Temproof Screws/Tray	477374
FK347 - Single Fusing	FK347+		

Project Name Thieneman Construction Fixture Type WM4
 Catalog # GBWM FT 400PSMHR F Voltage Color
 LSI INDUSTRIES INC.

PATRIOT (Various reflectors are protected by U.S. Patent No. 6,464,378)



LUMINAIRE EPA CHART - Patriot

Flat Glass	Single	D180°	D90°	T90°	TN120°	O90°
1.5	3.0	2.3	3.8	4.0	4.5	

Note: External House Side Shield adds to fixture EPA. Consult factory.



Project Name Thieneman Construction Fixture Type S4
 Catalog # PTH FT 400PSMHR F Volt Color on 20' Pole
 LSI INDUSTRIES INC.

HOUSING - One-piece, die-cast aluminum in a multi-radiused, rectangular shape with mounting arm cast as an integral part of the housing. All hardware is stainless steel or electro-zinc plated steel.

DOOR FRAME - The Patriot's one-piece, die-cast aluminum door frame secures to the housing with a stainless steel hinge bracket. An integral over-center latch allows easy tool-less access. Door frame may then be easily removed from housing. Door is provided with a catch mechanism that limits door swing. A one-piece extruded silicone gasket seals the door frame against the housing. The standard housing/door seal design prevents external contaminants from entering the Patriot, resulting in an IP65 rating in all versions.

LENS/GASKET - The Patriot is available with a tempered flat clear glass lens. A one-piece extruded silicone gasket seals the lens to the die-cast aluminum door frame.

SOCKETS - Porcelain mogul-base sockets. All sockets are factory prewired with a disconnect plug for the ballast. All sockets are pulse-rated.

LIGHT SOURCES - Pulse-Start Metal Halide, Pulse-Start Metal Halide Reduced Envelope, or High Pressure Sodium. Clear lamp is supplied as standard.

BALLAST - High-power factor ballast. Pulse-Start Metal Halide and High Pressure Sodium fixtures feature a CWA type ballast, designed for -20°F operation. Optional Quick Connect package includes supply wiring plus modular plugs for easy ballast wiring and a removable ballast tray.

REFLECTORS/DISTRIBUTION PATTERNS - The Patriot is available with a wide variety of reflectors, including Type II (2), Type III (3), Type V (5), Forward Throw (FT), and Automotive Forward Throw (FA). All reflectors are field-rotatable, enabling generous flexibility in distribution patterns, without fixture movement. Photometric data is tested in accordance with IESNA guidelines.

BRACKETS - Use with 5" traditional drilling pattern. The Patriot's integral cast mounting arm is flat for square pole applications. The fixture may also be mounted to round poles using the round pole adaptor accessory (RPPD), which must be ordered separately. An extruded 6" arm extension is available (but not required) for D90°, O90°, T90° and TN 120° fixture configurations. A locking nut secures two through bolts and a reinforcing plate to the pole, stabilizing it for easy fixture mounting.

SHIELDING - External House Side Shields are available for field installation with Types 2, 3, and FT distributions. Internal Louver available for field installation with Types 3 and FT distributions on 400 watt and below fixtures.

FINISHES - Each fixture is finished with LSI's DuraGrip® polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling, and is guaranteed for five full years. Standard colors include bronze, black, platinum plus, white, satin verde green, metallic silver, and graphite.

PHOTOMETRICS - Please visit our web site at www.lsi-industries.com for detailed photometric data.

PATRIOT

LUMINAIRE ORDERING INFORMATION

TYPICAL ORDER EXAMPLE: **PTH 5 400 PSMHR F MT MSV PCR**

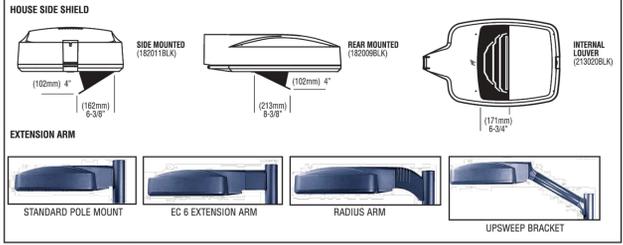
Luminaire Prefix	Distribution	Lamp Wattage	Light Source	Lens	Line Voltage	Luminaire Finish	Options
PTH (Horizontal Bars)	2-Type II 3-Type III FT - Forward Throw FA - Automotive Forward Throw ¹ 5 - Type V	250 320 400 750	PSMH - Pulse Start Metal Halide 250, 320, 750 Watt Reduced Envelope 400 Watt HPS - High Pressure Sodium 250, 400 Watt	F - Flat Clear Tempered Glass PC - Flat Clear Polycarbonate ⁴	120 208 240 277 347	BRZ - Bronze BLK - Black PLP - Platinum Plus WHT - White DVG - Satin Verde Green GPT - Graphite MSV - Metallic Silver	PCR - Photocell Control Rocustable ² QC - Quick Connect Package ⁴ LL - Less Lamp
	MT - Multi Tap	250 320 400	PSMH - Pulse Start Metal Halide Single 37, 70 Watt 250, 320, 750 Watt PSMH-R - Pulse Start Metal Halide Reduced 400 Watt HPS - High Pressure Sodium 250, 400 Watt	F - Flat Clear Tempered Glass PC - Flat Clear Polycarbonate ⁴	120 208 240 277 347	UE - Universal Electronic (120/277V Voltage)	
	TT - Tri-Tap	250 320 400	PSMH - Pulse Start Metal Halide Single 37, 70 Watt 250, 320, 750 Watt PSMH-R - Pulse Start Metal Halide Reduced 400 Watt HPS - High Pressure Sodium 250, 400 Watt	F - Flat Clear Tempered Glass PC - Flat Clear Polycarbonate ⁴	120 208 240 277 347	UE - Universal Electronic (120/277V Voltage)	

FOOTNOTES:

- 1- Available with 750 PSMH only.
- 2- 750 PSMH available in distribution types: 3, 5, FT, & FA.
- 3- Factory installed PCR requires field wiring to proper voltage. On QC version, PCR is pre-wired to highest voltage. Alternate voltages will require field re-wiring. Photocell must be ordered separately - see Accessories.
- 4- Quick Connect option includes removable ballast tray and modular plugs.

ACCESSORY ORDERING INFORMATION (Accessories are field installed)

Description	Order Number	Description	Order Number
PC120 - Photocell	122514	PTH 20' FT HSS RM - External House Side Shield - Rear Mounted	180989L+++
PC208-277 - Photocell for 208V, 240V or 277V	122515+	PTH 20' FT HSS SM - External House Side Shield - Side Mounted	180218L+++
PC347 - Photocell	159816+	PTH SFT LL - Internal Louver	219028L+++
PC480 - Photocell	122218a	RPPC - Round Pole Pole	141840L.R
FK120 - Single Fusing	FK120+	BKS-80-WM-CFL-R Wall Mount Plate	123111L.R
FK277 - Single Fusing	FK277+	BKA-80-EC-CL-R Extension Arm	142682L.R
DRK208-240 - Double Fusing	DRK208-240+	BKA-80-94-CL-R Radius Arm	166103L.R
DRK480 - Double Fusing	DRK480+	BKU-80-S-19-CL-R Upsweep Bracket for round and square poles	144191L.R
FK347 - Single Fusing	FK347+	*Factory Installed PCR option required. **Fusing must be located in the hand-hole of the pole, not in the fixture.	
PTH PLS - Polycarbonate Shield	9278	***Back only. ****Only available with 250-400 Watt fixtures. Black only.	



Project Name Thieneman Construction Fixture Type S4
 Catalog # PTH FT 400PSMHR F Volt Color on 20' Pole
 LSI INDUSTRIES INC.



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Thieneman Construction Office Building

17219 FOUNDATION PKWY. WESTFIELD, INDIANA

APPROVAL PENDING NOT FOR CONSTRUCTION

CERTIFIED BY

ISSUANCE INDEX

DATE:
 10/31/2014
PROJECT PHASE:
 DEVELOPMENT PLANS

REVISION SCHEDULE

NO.	DESCRIPTION	DATE
Δ	TAC COMMENTS	12/5/14

Project Number 2014.02154

PHOTOMETRIC DETAILS

C802