



Defined Benefit Pension Plans 2020: An Explanation

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The Loren D. Stark Company

Introduction

For over 105 years the Loren D. Stark Company, Inc. (LDSCO) has helped employers maintain efficient retirement plans. Working with employees and plan sponsors, LDSCO continues to enable plan participants to enjoy a secure and well funded retirement. Long term compound interest aided by deferral of tax on income allow government approved pension plans to accumulate large retirement savings for their owners. The choice of plan type and the specific provisions of the plan are the most important elements in designing a plan that achieves the optimum result for the plan sponsor. A small business owner can realize significant tax advantages in adopting a Defined Benefit Plan (designed and administered by LDSCO since 1974) or a Cash Balance Plan (a new design approved by Congress in 2008). The experience and expertise of LDSCO will help business owners realize these tax advantages!

The Limits on Individual Account Plans

Many tax qualified retirement plans establish an account for each individual participant, and a contribution is made to the account each year. These plans are known as Defined Contribution Plans. The 401(k) is a well known example of such a plan. But the tax deductions and maximum possible savings in such plans are limited in several ways.

The Maximum Annual Addition (the largest tax deductible deposit to an individual's account) is \$57,000¹ each year, but no more than 100% of that individual's compensation. Employees over the age of 50 may make an additional salary reduction contribution of \$6,500 (a "catch-up" contribution) in a 401(k) plan².

The Maximum Annual Addition rules mean that if a business owner in his early 50's starts a plan so he can retire in 10 years, he can only build up about half a million dollars of contributions, plus earnings, in his account.

The maximum deduction the employer that sponsors the plan can take for contributions is 25% of all participants' compensation³. So, if a business owner with no employees sponsors a one participant Defined Contribution Plan, the owner must receive compensation of \$228,000 to allow the company to contribute the Maximum Annual Addition in 2020.

¹ IRC Section 415(c) – this value is indexed to inflation and may increase from year to year

² IRC Section 415(c)

³ IRC Section 404(a)(3)

Larger Accumulations through a Defined Benefit Pension Plan

A participant's benefit in a Defined Benefit Plan is not determined (or limited) by an individual account, and depending upon the demographics of the employees, can allow a business owner to accumulate a much larger balance at retirement than a Defined Contribution Plan. A Defined Benefit Plan provides a pension – a monthly benefit payment for the life of the participant commencing at the Normal Retirement Age (NRA) defined in the plan.

The monthly benefit is restricted to a maximum of \$19,166.66 (\$230,000 annually). Like the Maximum Annual Addition above, this maximum amount is indexed to inflation and increases in most years. Instead of receiving a monthly pension, a participant may elect to receive a lump sum equivalent benefit at retirement. The lump sum is determined actuarially and is subject to complex rules involving the participant's age, compensation, and length of plan service, but a business owner who starts a plan at age 52 and takes a lump sum after ten years at age 62 could receive a single payment of up to \$2.9 million.

Compare this to a ten year accumulation of the Maximum Annual Addition to a Defined Contribution plan, and you can see the advantage of the Defined Benefit Plan. And the employer that funds the plan gets larger tax deductions, since larger contributions are needed to accumulate the desired lump sum benefit.

Operation of Defined Benefit Plans

Types of Entities & Compensation

Under current law, any type of business can sponsor either a Defined Contribution or a Defined Benefit Plan. This includes corporations (under either Subchapter S or C) and unincorporated businesses (sole proprietorships or partnerships). Over the years, the Internal Revenue Code (IRC) has been amended to eliminate differences in the way these plans are operated caused by the type of tax entity that sponsors the plan.

Whether the employer sponsors a Defined Contribution or a Defined Benefit Plan, the most important distinction which needs to be made for different business entities is the way in which *compensation* is determined for the purposes of plan benefits.

Compensation to employees that may be considered for plan purposes is reported on a W-2 provided by the plan sponsor. Owners of unincorporated businesses, however, are not considered employees by the IRS. Sole proprietors and partners are considered to be "self-employed" and may only consider "earned income" for purposes of determining plan benefits. Earned income is reported on Form 1040 Schedule C (for a sole proprietor), or Form K-1 (for partners in a partnership).

Earned income reported on Schedule C or K-1 is broadly referred to as pass-through income. Pass-through entities do not pay income taxes at the “corporate” level; instead, the business’ income is allocated among the owners/investors/shareholders and income taxes are, then, only levied at the individual owner’s level. Another type of business that generates pass-through income is the Subchapter S Corporation. However, unlike pass-through income reported on Schedule C or a partnership K-1, pass-through income to an owner of an S corporation is not earned income, and is not considered for retirement plans. Owners of an S corporation must report income on a W-2 issued by the corporation in order to consider the compensation for retirement plan purposes.

In discussing pass-through compensation, we should first note that “passive income” is not earned income and is not considered compensation in a retirement plan. Passive income is earnings derived from rental property, limited partnerships, or other enterprise in which he or she is not actively involved. Ordinary business income distributions reported on Line 1 of the K-1 do not support *earned income* and cannot produce compensation but earnings reported on line 14A can be recognized as earned income.

In a Defined Contribution Plan, a participant must have compensation every year in order to receive a contribution for that year. However, in a Defined Benefit plan, the benefit may be based on average compensation, even if no compensation is earned in a particular year.

More specifically, compensation for benefit calculation purposes in a DB plan is the compensation paid by the plan sponsor for the three consecutive years that produce the highest average (the “3-year average”). This is important for a self employed plan participant, since earned income is reduced by retirement plan contributions. For example, a sole proprietor who makes a plan contribution equal to 100% of his Schedule C income will have a compensation of \$0 that year for plan purposes. But, if the sole proprietor has already established a 3-year average compensation before the plan is adopted (that is, before earned income compensation is reduced by large plan deposits), the plan could still justify large deductible contributions to reduce the Schedule C income to \$0.

Pension Benefit Guarantee Corporation (PBGC)

To back up the employer’s benefit guarantee and to safeguard employees, defined benefit plans are insured by the federal Pension Benefit Guarantee Corporation (PBGC) up to specified limits: \$69,750/yr; \$5,812.50/mo. The employer must pay annual premiums of \$83 for each plan participant (or higher if the plan is under funded) to the PBGC to fund this insurance. Furthermore, the employer is liable for reimbursement to the PBGC for any guaranteed payments the PBGC must make to employees.

Certain plans are exempt from the PBGC program. Such plans include those that cover only owners of the plan sponsor (and/or spouses of the owners) and small plans sponsored by “professional” employers, such as doctors, attorneys, engineers, etc. These exceptions are described below in more detail. These plans do not pay annual premiums to the PBGC, but also do not have a federal guarantee of benefits that the plan is unable to pay.

Defined Benefit Plan – Minimum Required Contribution

Because the government is required to guarantee DB plan benefits through the PBGC, Congress has a monetary interest in making sure such plans are adequately funded and can pay all benefits as they come due. All plans must fund benefits as they are accrued in the plan. In addition, plans that are under funded with regard to previously accrued benefits must make additional contributions to bring the plan to a fully funded status. The Pension Protection Act of 2006 (PPA 2006) describes the method to determine a mandatory minimum plan contribution each year and sets required assumptions to value benefits for funding purposes.⁴

PPA 2006’s major objective was the improvement of the funding status of DB Plans. Although our clients are generally concerned with the maximum amount deductible, a discussion of the new minimum required contribution rules will be useful in that the terms used also apply in the determination of the maximum deduction limits.⁵ The DB Plan funding method creates a funding range, that is, a minimum required and maximum deductible contribution amount each year. By overfunding a plan in the first years of the plan, the plan sponsor creates an excess that can be used to eliminate mandatory minimum contributions in later years. The funding rules provide flexibility to small plan sponsors that can create a welcome cash flow management tool. Here are the major concepts of funding a DB plan under PPA 2006 and applicable IRS regulations:

1. Target Normal Cost – This is the present value of the benefits which are earned during the plan year.
2. Funding Target – The funding target of a DB Plan is the present value of all benefits that have been earned under the plan in prior years.⁶

If a plan is overfunded (i.e., the assets at the start of the year are greater than the Funding Target), the Minimum Required Contribution⁷ is the Target Normal Cost minus the amount by which the plan is already overfunded.

If a plan is underfunded, then the Minimum Required Contribution is the Target Cost, plus a seven (7) year amortization of the amount by which

⁴ IRC Sec 430

⁵ IRC Sec. 404(o)

⁶ IRC Sec 430(i)

⁷ IRC Sec 430

the plan is underfunded, the “Shortfall Amortization Charge.”⁸

By aggressively over funding the plan in its first two plan years, the plan sponsor can set up a series of years where the Minimum Required Contribution in each single year is \$0, but large deductions are still available when needed.

Defined Benefit Plan – Deduction Limits

The maximum deduction to a DB Plan is set forth in IRC Sec 404(o). The deduction limit is equal to the excess of the sum of the following:

1. The “funding target” (see above)
2. The “target normal cost” (see above)
3. The “cushion amount” (see below)

Over the value of the plan assets as of the valuation date (see Asset Valuation below).

The “cushion amount” for any plan year is the sum of the following:

1. 50 percent of the funding target for the Plan Year, and
2. An amount by which the funding target for the plan year would increase attributable to anticipated compensation increases not to exceed the maximum benefit⁹ unless the plan is covered by the PBGC. However, this cushion amount can not include benefit increases attributable to Highly Compensated Employees resulting from plan amendments effective within the last two (2) years. The range between the minimum and maximum contribution for existing DB Plan can provide significant flexibility.

Item 1 of the “cushion amount” effectively allows the plan sponsor to fund a plan (on a fully deductible basis) up to 150% of the level needed to meet current benefits.

Item 2 allows a plan sponsor to fund benefits that will accrue due to future salary increases, even before they have actually been paid to employees, again, on a fully deductible basis.

Asset Valuation

The value of the Plan assets as of the Valuation Date¹⁰ (generally the first day of the Plan Year) is compared to the present value of benefits accrued in the current year and in prior years to determine the minimum and maximum contribution range. Generally, the assets are valued at fair market for this purpose although a technique for

⁸ IRC Sec 430(c)

⁹ IRC Sec 415

¹⁰ IRC Sec 430(g)(3)

smoothing is available. The market value of almost any asset is ascertainable. If some form of auction market is not operative, an appraisal can be achieved. There is nothing significantly new in the area of asset valuation other than the IRC treatment of the market value of life insurance in the IRS audit of IRC Sec 412(i) Plans (fully insured defined benefit plans) which will be addressed later.

Funding Strategy

The intent of the PPA 2006 funding law is to have all DB plans funded at 100% to 150% of benefits. For a small business (where cash flow concerns may cause large variability in the amounts available for plan contributions from year to year) that sponsors a DB Plan, we recommend that the plan be funded aggressively in the first two to three years of the plan, in order to provide maximum flexibility in later years.

Suppose in the first three years of the plan, the employer funds the maximum 150% of benefits. This means that after three years of benefits have accrued, the plan has assets to pay for 4½ years of benefits. This would allow the plan sponsor to contribute \$0 as the plan benefits grow from 3 years of benefits to 4 years of benefits. Of course, if the employer wants a deduction, he can still fund another 150% of a year's worth of benefits. This gives a plan sponsor a funding range that could potentially run from \$0 to a very large deduction as needed each year.

Deduction Limits - Combined DB & DC Plans

Historically, Congress has tried to balance the government's competing goals of making sure plans are sufficiently funded to pay all benefits as they come due, and to limit employer deductions that reduce government revenue. Specifically, there have been many different restrictions and formulas on contribution limits when an employer sponsors both a Defined Benefit and a Defined Contribution plan.

Current IRC provisions provide that an employer who maintains both a DB that is covered under the PBGC and DC plan can fully deduct its required contributions to the DB plan as well as deduct contributions to the DC Plan up to 25% of compensation of all employees participating in the plan.

If, however, the DB plan is not PBGC covered, the maximum deductible employer contribution to the DC plan is *reduced to 6%* of eligible compensation, in addition to the DB plan's required funding. A plan is exempt from PBGC coverage if it meets one of the 2 exceptions (discussed below),

Since the exceptions to mandatory coverage by the plan will have a significant restriction on the funding limits of a combination plan by the plan sponsor, the exceptions are important to understand. Whether a plan is covered by PBGC is determined by statute. A plan sponsor may not voluntarily decide to treat a non-

covered plan as covered for the purpose of making larger deductible contributions to a companion DC plan. The following are the two (2) PBGC coverage exceptions that apply most often to small businesses:¹¹

1. *Professional Service Employer* – Plans sponsored by a professional service employer covering twenty-five (25) or fewer active participants are exempt. A profession service business is one owned or controlled by professional individuals that includes physicians, dentists, public engineers, architects, actuaries, psychologists, etc. involved in professional services.
2. *A plan covering only substantial owners* – For purposes of this exclusion a substantial owner is anyone owning more than 10% interest (capital, profit interest, or outstanding shares) of the sponsor. Ownership is determined by attribution of ownership under IRC Sec 1563(e). These attribution rules attribute stock to a spouse but not to a child over the age of 21. So a sole proprietor employing a spouse is not PBGC covered but an owner employing an adult child is subject to PBGC coverage. Therefore, a sole proprietor employing an adult child who is covered by the plan has a larger deduction limit for companion plans.

In summary, an employer with a DB Plan which is covered by the PBGC may increase plan contribution limits simply by increasing the DC employer contribution to the maximum, or the DB benefit to the maximum, or both.

Types of Plans and Their Application

The Only Plan

If using only one (1) plan, adopting the Defined Benefit Plan as the only plan should produce the best result for the taxpayer who is motivated by tax deduction considerations. The tax-deductible deposit then is restricted only by the deduction limits that apply to DB Plans.

Companion Plans

In the event that the sponsor maintains a Defined Contribution Plan and the participants do not want to lose control of 401(k) contributions or individual direction of segregated self-directed accounts, a Defined Benefit Plan may be established as a second plan for employers desiring additional deductions.

The Defined Benefit must satisfy the coverage requirements set forth below, and the total employer deposits to both plans is limited as described above. Once both of

¹¹ ERISA Sec 4021(b)

these requirements are met, the employer may find that providing large benefits for the business owner(s) in the DB Plan may require only small contributions for the younger and lower paid employees in the DC Plan. These companion plans are becoming increasingly popular.

See Exhibit C for an illustration showing the benefit of such Companion Plans when there are no non-owner employees.

Exhibit D demonstrates its use with a few non-owner participants.

Cash Balance Plans after PPA 2006

A Cash Balance plan is a Defined Benefit Plan where each participant is given an account (the hypothetical account) that is credited with contributions each year and a guaranteed interest formula. The plan can be structured like a New Comparability Profit Sharing Plan targeting larger benefits for the older and higher paid participants (the business owners) but smaller costs for rank and file employees. The highly paid participants can receive an account contribution that exceeds the Defined Contribution Annual Addition limit (\$57,000 in 2020). This aspect of this hybrid plan is promising.

However, these plans are defined benefit plans resulting in the following disadvantages:

Investments – The plan investments are in a pooled fund and therefore no segregated self-directed accounts are available.

Top Heavy – A top heavy plan is one that provides more than 60% of the aggregated accrued benefits or account balances to *key employees*.

Since the Cash Balance Plan is a Defined Benefit Plan, it is subject to the Top Heavy Minimum Benefit rule of a true Defined Benefit Plan.

For each non-key employee, at least 2% of compensation multiplied by years of service, up to 20%.

Vesting – The Cash Balance benefit including the Top Heavy minimum must be fully vested in three (3) years.

Life Insurance – Life Insurance for participants is not an option for Cash Balance Plans that are mixed with a 401(k) or other DC Plan.

Exhibit E illustrates the benefit of utilizing a Cash Balance Plan in combination with a 401(k) Plan.

Offset Plans

A full offset plan arrangement has become a popular plan design to maximize the benefit for Highly Compensated Employees.

IRS Reg. 1.401(a)(26)-5(a)(2)(iii) provides that a participant whose benefit is completely offset by a DC annual addition is considered benefiting for purposes of IRC Sec. 401(a)26 (see below).

IRS Reg. 1.410(b)-3(a)(iii)(D) provides that those same employees are benefiting for the purposes of IRC Sec 410(b) (see below).

With the needed guidance provided by PPA 2006 for Cash Balance Plans, an Offset Cash Balance Plan in combination with a 401(k) Plan with a Profit Sharing Plan feature can provide an excellent result.

The plans in the aggregate must satisfy IRS Reg Sec 1.401(a)(4)-9 in order to be considered non-discriminatory as follows:

1. Minimum Gateway – generally the DB/DC combination plans we design would not satisfy the “primarily defined benefit in character” test and will therefore be required to satisfy the minimum gateway which will generally require an allocation to the NHCEs in the DC Plan equal to 7½% of compensation. DC/DB combination not requiring the gateway to be the maximum of 7½% of compensation for the NHCEs will be providing a benefit rate to the HCEs of less than 35% of compensation.
2. Rate Groups – a certain percentage of the NHCEs must have an equivalent accrual rate equal to or greater than each HCE in the same manner as New Comparability (Cross-Tested) DC Plans. The distinction is that the DC and DB rates are aggregated.¹²

In many circumstances, this form of companion plans can produce the optimum result for the taxpayer.

Exhibit F is an example of Companion 401(k) and Cash Balance Cross Tested Plans using the 100% Offset design.

Exhibit G illustrates an example of cross testing a Companion 401(k) and Cash Balance Plans when the offset is not available.

Upon reviewing these illustrations, the reaction is often that such a design is “*too good to be true*,” i.e. not permissible. LDSCO has received a favorable determination letter for such Companion Plans based on the IRS published regulations cited above. At this time, only Congress can change the law.

Plans Using Life Insurance

If life insurance were provided in the Cash Balance plan of the offset arrangement explained above, such a benefit or feature for the HCEs would likely be considered discriminatory in favor of the highly paid employees who derive the largest

¹² Final Regulation Section 1.401(a)(4) – 9(b)(2)(ii)

benefit from the cash balance plan. Therefore, life insurance will generally not be available for Cash Balance Plans with this offset plan design.

The “fully insured DB plans”¹³ (formerly 412(i) plans) are a viable plan design that would have the most appeal in a business with few employees and an owner age 50 or older. These plans are now covered in IRC Sec 412(e)(3).

The plan must be funded exclusively with annuity products, or a combination of life insurance and annuity products issued by an insurance company that provide for level annual premium payments with benefits guaranteed by an insurance carrier.

If the benefits must be guaranteed by the contracts, the funding of the contracts must be based on their guaranteed rates.

Life insurance dividends and excess annuity interest must be used to reduce the following year’s plan contribution and premium and excess annuity interest with no policy loans allowed under the contracts.

The investment options are more limited than a regular DB plan, however, they do create a large deduction, a secure promise of benefits, a reasonable market rate of return on investments, and less complexity in funding, operation, and understanding.

Traditional DB Plans and cash balance plans that are not combined with a DC Plan may still purchase life insurance contracts for all participants in a non-discriminatory manner. The life insurance contracts are considered part of the plan assets as discussed above under “Asset Valuation.” The death benefit must satisfy the “incidental rule” by limiting the death benefit to 100 times the monthly benefit or less or limiting the life insurance premium amount.

This latter method provides a uniform nondiscriminatory death benefit equal to the face amount of the policy plus the Present Value of the Accrued Benefit (PVAB) as of the date of death less the Cash Value of the policy. The premium is limited to 66 2/3% for Whole Life, or 33 1/3% for Term or Universal Life times the “Theoretical Contribution.” The Theoretical Contribution is an amount needed each year to amortize the lump sum amount needed at Normal Retirement Age to fund the participant’s monthly single life annuity.

Coverage Considerations

Demographics of the Participants

Stating the obvious then, the best fact situation (where “best” means the largest benefit for the business owner at the smallest cost of benefits for all other employees) for the application of the Defined Benefit Plan, as well as any plan, is when the taxpayer

¹³ IRC Sec 412(e)(3)

or owner of the taxable entity is the only eligible participant. If the plan sponsor employs other individuals, at least some of those employees must participate in whatever type of plan is adopted. However, the law allows contributions to be larger for older and higher paid employees, so costs can be reduced for younger and lower paid employees, which generally favors business owners.

Coverage Tests for Qualified Retirement Plans

Internal Revenue Code Section 401(a)(26)

This Code Section only applies to Defined Benefit Plans. It requires a plan to benefit at least 40% of all eligible employees in the DB Plan. A Defined Benefit Plan may provide different levels of benefits for different participants. This rule allows a cash balance plan to provide large benefits to owners, and small benefits to enough other employees to reach the required 40% level, with the non-owner employees receiving a benefit in a companion DC Plan to meet the additional tests below.

Internal Revenue Code Section 410(b)

Both Defined Benefit Plans and Defined Contribution Plans must satisfy this Code Section. The section requires a plan to cover a percentage of the non-highly compensated employees (NHCEs) equal to 70% of the percentage of the HCEs covered.

Example:

Owner employs his wife and eight (8) others, all of whom have been employed for one (1) year or longer.

Plan excludes wife, an HCE, and therefore covers 50% of the HCEs.

70% of 50% is 35%. 35% of eight (8) NHCEs is three (3).

Three (3) NHCEs plus one (1) HC is four (4).

Four (4) is 40% of ten (10) and, therefore, Internal Revenue Code Section 401(a)(26) also is satisfied.

For purposes of this test, a "Plan" may include a DB Plan and a DC Plan that operate together for testing:

Example:

A partnership is composed of six (6) doctors and four (4) other employees, all of whom have been employed for one (1) year or longer.

The six doctors all receive large contributions in a cash balance plan. The other four employees receive much smaller contributions in a 401(k) DC Plan.

The cash balance DB plan covers six of ten total employees, so more than 40% and 401(a)(26) is passed.

The two plans tested together cover 100% of HCEs and NHCEs, so both plans pass 410(b) testing.

Internal Revenue Code Section 401(a)(4)

Code Section 401(a)(4) states that a plan (DB or DC) may not be operated in a way that discriminates in favor of HCEs over NHCEs. While the rule is simple, its implementation is complex, with hundreds of pages of IRS regulations covering what level of contributions will be considered “discriminatory,” depending on whether the plan is DB, DC, or a combination or hybrid plan. As part of our annual services, LDSCO will help small plan sponsors navigate these rules successfully.

Cost Analysis

The customary methods used to determine the cost to the sponsor to maintain a Qualified Plan are not appropriate for Defined Benefit Plans. The annual administration costs are generally disclosed and invoiced directly to the sponsor.

Since the assets in a Defined Benefit Plan are maintained as a pool rather than as the segregated self-directed account approach of the typical 401(k) Plan, those costs are often less than costs for a DC Plan.

The most significant cost associated with the sponsorship of any Qualified Plan is the required funding of nondiscriminatory benefits for the other participants. The true cost incurred by the sponsor funding the nondiscriminatory benefits is the actual amount ultimately paid to the participants from the plan. This cost analysis or projection can factor in an assumption as to turnover of participants and the applicable vesting schedule.

The true cost to the sponsor could also be less than expected when a smaller amount is paid to a plan participant by the application of the vesting schedule. In the event that a participant terminates and is paid a benefit that is less than 100% vested, the plan realizes an actuarial gain due to the forfeiture of the unvested portion of the benefit that may reduce the required contributions to the plan in future years.

If a DB Plan allows lump-sum distributions (nearly all plans sponsored by small businesses do offer such single payment distributions), the lump sum must be equal to the present value of the future payment (annuity) to the extent vested (PVVAB) commencing at NRA.

The mortality table and the interest rates used to determine the PVVAB are now established by the IRS Code as amended by PPA 2006¹⁴. Therefore, there is not an exact correlation between funding and the PVVABs.

Another example is that since the interest rates are continually derived from a three-segment “yield curve” of investment-grade corporate bonds, the future projected value can only be estimated. The true cost is only quantifiable when all benefits have been paid and the plan is terminated.

Additional Considerations

Permanency and Flexibility

The common misconception is that upon the adoption of the Defined Benefit Plan the sponsor is committed to a fixed annual outlay to fund the plan.

This is not the case.

The IRS stated its position in Regulation Section 1.401-1(b)(2) providing that the term plan “implies a permanent as distinguished from a temporary program.” The regulation explains as follows:

Thus, although the employer may reserve the right to change or terminate the plan, and to discontinue contributions there under, the abandonment of the plan for any reason other than business necessity within a few years after it has taken effect will be evidence that the plan from its inception was not a bona fide program for the exclusive benefit of employees in general. Especially will this be true if, for example, a pension plan is abandoned soon after pensions have been fully funded for persons in favor of whom discrimination is prohibited under section 401(a). The permanency of the plan will be indicated by all of the surrounding facts and circumstances, including the likelihood of the employer’s ability to continue contributions as provided under the plan.

In practice, the IRS does not question the funding history of a plan that has lasted five (5) years or longer. Therefore, although the plan may be amended to vary the plan deposits to fit the annual objectives of the taxpayer, a plan should not be terminated in less than five (5) years unless there is a “business necessity” to do so.

Beginning in 2007, DB Plans have been permitted to provide in-service distributions starting at age sixty-two (62) (i.e., taxable distributions) without the requirement of a distributable event such as a separation of service. This provision provides some welcome flexibility for DB Plans.

¹⁴ IRS Code Sec 417(e) and 430(h)

For the sponsor of the tax motivated Defined Benefit Pension Plan, the PBGC coverage, although possibly required in certain cases, is only an inconvenience unless needed to eliminate the deduction limit of IRC Sec. 404(a)(7). If the current \$83 annual premium is an issue, a Defined Benefit Plan is not an option. The scenario of a bankruptcy and the surrender of 20% of the sponsor's assets to the PBGC is not conceivable because of the manner in which these plans are supervised and administered.

Excess Assets

The term "Excess Assets" refers to the market value of a Defined Benefit Plan's assets at the moment of plan termination which cannot be distributed to the plan participants. Every plan participant has a maximum benefit, based on a complex formula regarding age, compensation, length of service, and length of time as a plan participant. The amount which can be paid out to any plan participant in a lump sum – which can be "rolled over" to an IRA – is the present value of the participant's maximum benefit calculated as a straight life annuity.¹⁵ In the event the plan assets exceed the limit of the lump sums that can be paid at the time of plan termination, the excess assets revert to the plan sponsor, and are subject to an excise tax of 50%¹⁶ plus regular income tax.

This is *not* a good result....

Possible solutions to prevent this reversion and extreme excise tax are as follows:

1. Reduce the funding before NRA allowing the plan value to mature closer to the maximum lump sum,¹⁷ or
2. After NRA, increase the payout post retirement so that the plan assets recede to the maximum lump sum¹⁸ at some point in the future. If a plan is funded aggressively, the only option for the taxpayer (that avoids confiscatory reversion tax penalties against excess assets) will be a lifetime payout.

The reversion and the excise tax apply only in the event the plan is terminated and all assets held cannot be distributed due to the plan being over-funded. A plan may become over-funded by funding the maximum permissible deductible amount over a series of years, or if the plan receives an unexpected surge in the market value of the plan assets. Obviously, if the taxpayer is intentionally over-funding a plan on a long-term basis, a plan termination is not contemplated but rather a lifetime payout to the participant and spouse.

Remember that the maximum distributable lump sum is based on an average life expectancy for a single individual. But people who have the financial resources to save

¹⁵ IRC Section 415(b); IRC Section 4980 (d)(4)

¹⁶ IRC Section 4980(d)(1)

¹⁷ IRC Sec 417(e)

¹⁸ IRC Sec 417(e)

close to \$4 million for retirement tend to have longer life expectancies than the average person. And the actual distribution of the maximum benefit may be over the joint life times of a participant and spouse, rather than over a single lifetime. Therefore, the plan which is “over-funded” according to maximum lump sum payout law may be properly funded under actual conditions.

Exhibit B illustrates this point. It shows an over funded plan with a potential reversion of plan assets and how a prolonged distribution period can reduce and eventually eliminate the reversion.

The chart illustrates a plan started in 2009 by a 52 year old owner, whose benefit phases in over 10 years and reaches a maximum in 2019 at age 62. The blue line represents the maximum amount which may be distributed in a lump sum upon plan termination.

Under pension law, the lump sum reaches a maximum at age 62 (in 2019) and decreases thereafter. Although this is the maximum benefit that may be paid from the plan as a lump sum, the employer is allowed to fund up to 150% of this value. In this illustration, the employer aggressively funds the plan for the entire ten year period 2009-2019. The red line represents the amount of assets a plan sponsor could fund under current law.

After age 62, when the plan no longer presents the continued ability to fund on a tax deductible basis, the plan begins to distribute the maximum benefit to the participant in the form of an annual annuity payment (\$225,000 in 2019, but indexed to inflation and may increase in later years). The actual assets begin to decrease due to distributions from the plan.

Although over funded at age 62, by the time the participant approaches the age of 90, the decreasing value of assets falls below the amount that may be distributed as a lump sum. If the assets are not distributed, the plan will run out of funds at the participant’s age 93. As long as either the original participant or the participant’s spouse reach these advanced ages, the plan can continue to distribute funds.

Should the plan be terminated before the actual assets fall below the maximum lump sum distribution value, the value of the plan assets in excess of the blue line would be excess assets and revert to the employer that sponsors the plan.

Of course, it is possible that both the participant and the participant’s spouse will not live long enough to deplete all of the assets from the plan. Assume that participant and spouse take their maximum benefit, currently \$18,750.00 monthly, increased annually for cost-of-living adjustments (COLA) not to exceed IRC Sec 415 maximums until the death of the surviving spouse.

Upon the death of both the participant and the spouse beneficiary, such participant’s benefit ceases. There is no remaining benefit, i.e. there is no death benefit payable after the death of both the participant and the spouse beneficiary. Any assets

not yet paid out remain in the Plan, but the plan has not terminated and so there is no reversion.

Now let's assume that the plan sponsor, the business entity producing the income to fund the plan at the time of the survivor's death, is owned by a natural heir who is both an employee of the sponsor and a participant in the plan. If the plan is overfunded at that time, such overfunding inures to the benefit of such participant. The plan is not terminated so there is no reversion.

How does such natural heir become the owner of the sponsor? Preferably by acquiring the ownership by working for the sponsor during which time he builds the business by his own efforts and acquires the balance by purchase or gift. The value of the purchase or gift will be influenced by the potential reversion in the event the plan was terminated. If the ownership of the sponsor is transferred by bequest, its Market Value would also be influenced by the potential reversion.

What influence should the potential reversion have on the Market Value of the sponsor? No authority has addressed this question. However, assuming a 35% tax rate and a 50% excise tax, the sponsor would only realize 15% of the reversion. Therefore, it would appear logical that in the appraisal process, only 15% of the potential reversion would be used to increase the Market Value of the sponsor for Estate and/or Gift Tax purposes.

Reading Exhibit A of Maximum First Year Plan Contributions

Exhibit A that follows illustrates the maximum benefit at retirement and deposit for a DB plan for the first plan year 2019.

Current Age is entry age on 1 January 2019, which is the start of the first plan year. Retirement Age is the early retirement age, if the plan is started before the key employee is age 52, or Normal Retirement Age thereafter.

Normal Retirement Age (NRA) for all DB plans must be no earlier than age sixty-two (62), and no later than age 65 or 5 years of plan participation for employees who enter the plan after age 60.

A plan may provide and fund for an Early Retirement Age benefit. The benefit must be smaller than the benefit available at ages 62 through 65, but because the benefit is funded more quickly and is paid out for a longer life expectancy, the early retirement benefit generates a greater deductible cost. The maximum benefit must accrue at 10% per year over the first ten years of the plan's existence, so setting early retirement at an age ten years after the plan starts maximizes the retirement benefit and annual funding.

A participant may continue to accrue a benefit after reaching early or normal retirement age, but if the plan has already been fully funded by that time, deductions to the plan may be greatly reduced.

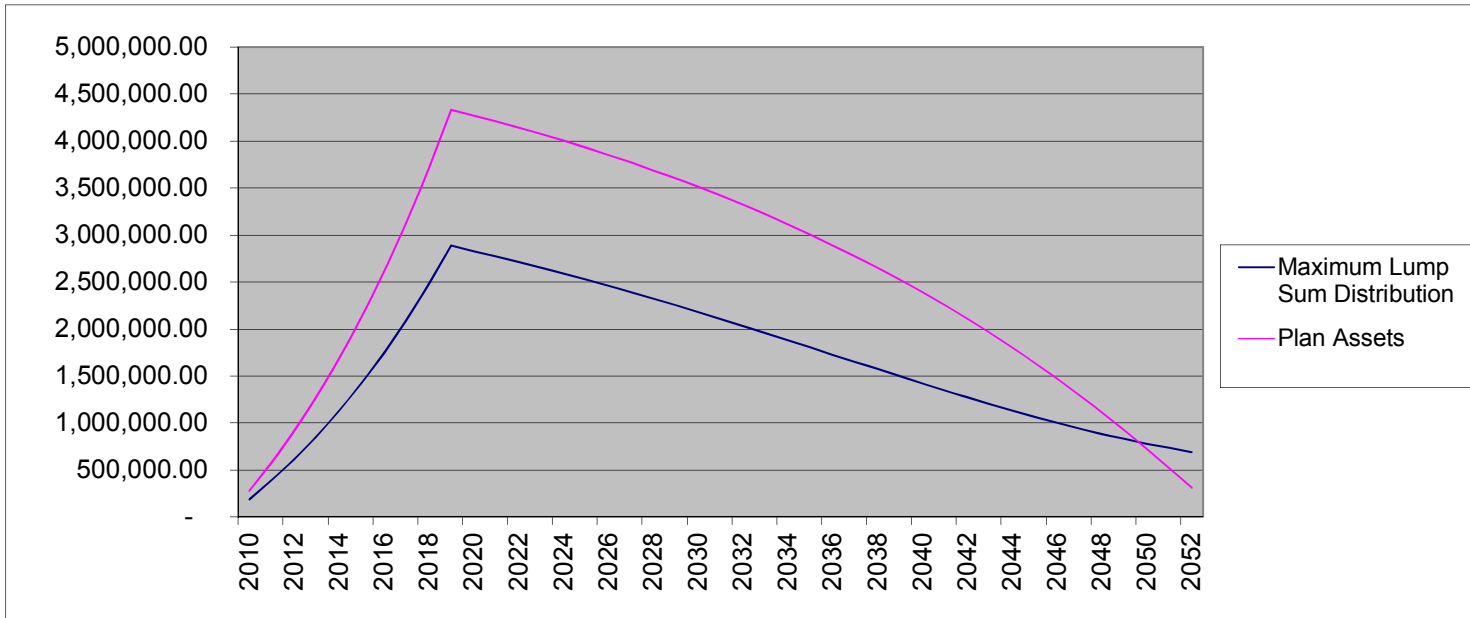
EXHIBIT A

SCHEDULE OF MAXIMUM DEFINED BENEFIT DEPOSITS

Assumptions: Valuation Date	January 1, 2019
Pre and Post-retirement Interest	Tiered Rates: 2.55% / 3.93% / 4.49%
Mortality Table	RP19CU
Benefit Form	STRAIGHT LIFE
Maximum Compensation	\$ 280,000.00

Date of Birth	Current Age	Retirement Age	Years of Participation	Retirement Date	Maximum Benefit	Maximum Contribution
1/1/1983	36	46	10	1/1/2029	6,799.20	132,807.00
1/1/1982	37	47	10	1/1/2029	7,209.55	139,571.00
1/1/1981	38	48	10	1/1/2029	7,648.64	146,681.00
1/1/1980	39	49	10	1/1/2029	8,118.94	154,156.00
1/1/1979	40	50	10	1/1/2029	8,623.12	162,015.00
1/1/1978	41	51	10	1/1/2029	9,164.15	170,278.00
1/1/1977	42	52	10	1/1/2029	9,745.45	178,964.00
1/1/1976	43	53	10	1/1/2029	10,370.54	188,097.00
1/1/1975	44	54	10	1/1/2029	11,043.45	197,699.00
1/1/1974	45	55	10	1/1/2029	11,768.58	207,795.00
1/1/1973	46	56	10	1/1/2029	12,549.89	218,408.00
1/1/1972	47	57	10	1/1/2029	13,391.76	229,568.00
1/1/1971	48	58	10	1/1/2029	14,300.93	241,300.00
1/1/1970	49	59	10	1/1/2029	15,283.89	253,636.00
1/1/1969	50	60	10	1/1/2029	16,347.88	266,606.00
1/1/1968	51	61	10	1/1/2029	17,500.55	280,242.00
1/1/1967	52	62	10	1/1/2029	18,750.00	294,580.00
1/1/1966	53	63	10	1/1/2029	18,750.00	288,774.00
1/1/1965	54	64	10	1/1/2029	18,750.00	282,844.00
1/1/1964	55	65	10	1/1/2029	18,750.00	276,762.00
1/1/1963	56	65	9	1/1/2028	16,875.00	287,639.00
1/1/1962	57	65	8	1/1/2027	15,000.00	298,943.00
1/1/1961	58	65	7	1/1/2026	13,125.00	310,691.00
1/1/1960	59	65	6	1/1/2025	11,250.00	322,902.00
1/1/1959	60	65	5	1/1/2024	9,375.00	335,592.00
1/1/1958	61	66	5	1/1/2024	10,082.08	352,777.00
1/1/1957	62	67	5	1/1/2024	10,854.20	370,846.00
1/1/1956	63	68	5	1/1/2024	11,699.84	387,162.00
1/1/1955	64	69	5	1/1/2024	12,627.96	397,166.00
1/1/1954	65	70	5	1/1/2024	13,648.76	407,774.00
1/1/1953	66	71	5	1/1/2024	13,750.00	419,020.00
1/1/1952	67	72	5	1/1/2024	13,750.00	430,946.00
1/1/1951	68	73	5	1/1/2024	13,750.00	443,594.00
1/1/1950	69	74	5	1/1/2024	13,750.00	457,011.00
1/1/1949	70	75	5	1/1/2024	13,750.00	471,246.00

EXHIBIT B



**OWNER ONLY COMPANION PLANS
401(k) AND DEFINED BENEFIT PENSION STUDY
FOR THE PLAN YEAR ENDING DECEMBER 31, 2019
(RETIREMENT AGE 65)**

PARTICIPANT NAME	Age	SALARY	Defined Contribution		Defined Benefit			PRESENT VALUE OF ACCRUED BENEFIT	DC & DB TOTAL	% OF TOTAL EMPLOYER CONTRIBUTION
			401(K) DEFERRAL	EMPLOYER DISCRETIONARY	DEFINED CONTRIBUTION TOTAL	ESTIMATED MONTHLY BENEFIT	MAXIMUM DEFINED BENEFIT COST			
OWNER	55	\$ 280,000.00	\$ 25,000.00	\$ 16,800.00	\$ 41,800.00	\$ 18,750.00	\$ 277,029.00	\$ 184,309.00	\$ 318,829.00	
TOTAL FOR EMPLOYER		\$ 280,000.00	\$ 25,000.00	\$ 16,800.00	\$ 41,800.00		\$ 277,029.00	\$ 184,309.00	\$ 318,829.00	
GRAND TOTAL		\$ 280,000.00	\$ 25,000.00	\$ 16,800.00	\$ 41,800.00		\$ 277,029.00	\$ 184,309.00	\$ 318,829.00	100%

This illustration is contingent upon several factors. Some of the factors are the demographic, financial and business ownership information provided to us. Should any of these factors change in any year, a plan adopted based on this illustration may require modification to an appropriate plan design. The actual contributions for the year illustrated can not be determined until actual compensation for the year is known.

41/4911
1/22/2019

Plan Deposit (deposit on 12/31/2019)
Maximum \$277,029.00
Minimum \$27,669.00

**PBGC COVERAGE
SAFE HARBOR 401(k) W/NEW COMPARABILITY AND DEFINED BENEFIT PENSION STUDY
FOR THE PLAN YEAR ENDING DECEMBER 31, 2019
(RETIREMENT AGE 65)**

PARTICIPANT NAME	Age	Defined Contribution					Defined Benefit				% OF TOTAL EMPLOYER CONTRIBUTION
		SALARY	401(K) DEFERRAL *	SAFE HARBOR 3% CONTRIBUTION	EMPLOYER DISCRETIONARY	DEFINED CONTRIBUTION TOTAL	ESTIMATED MONTHLY BENEFIT	PRESENT VALUE OF ACCRUED BENEFIT	DC & DB TOTAL		
OWNER #1	55	\$ 280,000.00	\$ 25,000.00	\$ 8,400.00	\$ 28,600.00	\$ 62,000.00	\$ 18,750.00	\$ 184,309.00	\$ 246,309.00		
OWNER #2	51	\$ 280,000.00	\$ 25,000.00	\$ 8,400.00	\$ 28,600.00	\$ 62,000.00	\$ 18,750.00	\$ 151,180.00	\$ 213,180.00		
TOTAL FOR EMPLOYER		\$ 560,000.00	\$ 50,000.00	\$ 16,800.00	\$ 57,200.00	\$ 124,000.00		\$ 335,489.00	\$ 459,489.00	95%	
EMPLOYEE #1	39	\$ 34,599.00	\$ -	\$ 1,037.97	\$ 487.85	\$ 1,525.82	\$ 2,883.27	\$ 11,822.00	\$ 13,347.82		
EMPLOYEE #2	28	\$ 23,566.00	\$ -	\$ 706.98	\$ 332.28	\$ 1,039.26	\$ 1,963.84	\$ 3,388.00	\$ 4,427.26		
EMPLOYEE #3	30	\$ 27,460.00	\$ -	\$ 823.80	\$ 387.19	\$ 1,210.99	\$ 2,288.36	\$ 4,583.00	\$ 5,793.99		
EMPLOYEES		\$ 85,625.00	\$ -	\$ 2,568.75	\$ 1,207.32	\$ 3,776.07		\$ 19,793.00	\$ 23,569.07	5%	
GRAND TOTAL		\$ 645,625.00	\$ 50,000.00	\$ 19,368.75	\$ 58,407.32	\$ 127,776.07		\$ 355,282.00	\$ 483,058.07	100%	

This illustration is contingent upon several factors. Some of the factors are the demographic, financial and business ownership information provided to us. Should any of these factors change in any year, a plan adopted based on this illustration may require modification to an appropriate plan design. The actual contributions for the year illustrated can not be determined until actual compensation for the year is known.

1/22/2019

Plan Deposit (deposit on 12/31/2019)
Maximum \$571,691.00
Minimum \$67,123.00

**PBGC COVERED
COMPANION PLANS
FOR THE PLAN YEAR ENDING DECEMBER 31, 2019
CASH BALANCE PLAN**

PARTICIPANT NAME	Age	SALARY	401(K) DEFERRAL	Defined Contribution			Cash Balance			% OF TOTAL EMPLOYER CONTRIBUTION		
				401(K) DEFERRAL %	SAFE HARBOR 3% CONTRIBUTION	EMPLOYER DISCRETIONARY %	DEFINED CONTRIBUTION TOTAL	HYPOTHETICAL ACCOUNT	HYPOTHETICAL ACCOUNT %		DC & DB TOTAL CONTRIBUTION	
MAJORITY OWNER	52	\$ 280,000.00	\$ 25,000.00	9.00%	\$ 8,400.00	\$ 28,600.00	10.21%	\$ 62,000.00	\$ 144,936.00	51.76%	\$ 206,936.00	
MINORITY OWNER	42	\$ 114,518.00	\$ 19,000.00	14.84%	\$ 3,435.54	\$ 33,564.46	29.31%	\$ 56,000.00	\$ 47,158.51	41.18%	\$ 103,158.51	
TOTAL FOR OWNER HCES		\$ 394,518.00	\$ 44,000.00		\$ 11,835.54	\$ 62,164.46		\$ 118,000.00	\$ 192,094.51		\$ 310,094.51	92%
EMPLOYEE 1	38	\$ 97,642.00	\$ -	5.00%	\$ 2,929.26	\$ 12,937.57	13.25%	\$ 15,866.83	\$ 2,148.12	2.20%	\$ 15,866.83	
EMPLOYEE 2	25	\$ 63,836.00	\$ -	5.00%	\$ 1,915.08	\$ 8,458.27	13.25%	\$ 10,373.35	\$ 1,404.39	2.20%	\$ 10,373.35	
EMPLOYEE 3	34	\$ 10,646.00	\$ -	0.00%	\$ 319.38	\$ 1,410.60	13.25%	\$ 1,729.98	\$ 234.21	2.20%	\$ 1,729.98	
EMPLOYEE 4	19	\$ 851.00	\$ -	0.00%	\$ -	\$ -	0.00%	\$ -	\$ -	0.00%	\$ -	MINIMUM SERVICE
TOTAL FOR NHCEs		\$ 172,124.00	\$ -		\$ 5,163.72	\$ 22,806.44		\$ 27,970.16	\$ 3,786.72		\$ 27,970.16	8%
GRAND TOTAL		\$ 566,642.00	\$ 44,000.00		\$ 16,999.26	\$ 84,970.90		\$ 145,970.16	\$ 195,881.23		\$ 338,064.67	100%

This illustration is contingent upon several factors. Some of the factors are the demographic, financial and business ownership information provided to us. Should any of these factors change in any year, a plan adopted based on this illustration may require modification to an appropriate plan design. The actual contributions for the year illustrated can not be determined until actual compensation for the year is known.

41/1005
41/1006
1/22/2019

Plan Deposit on 12/31/2019
Contribution to the Cash Balance Plan \$ 195,881.23

**PBGC COVERED
COMPANION PLANS
FOR THE PLAN YEAR ENDING DECEMBER 31, 2019
CASH BALANCE PLAN**

PARTICIPANT NAME	Age	SALARY	401(K) DEFERRAL *	401(K) DEFERRAL %	SAFE HARBOR 3% CONTRIBUTION	Defined Contribution			Cash Balance		DC & DB TOTAL CONTRIBUTION	% OF TOTAL EMPLOYER CONTRIBUTION
						EMPLOYER DISCRETIONARY	EMPLOYER DISCRETIONARY %	DEFINED CONTRIBUTION TOTAL	HYPOTHETICAL ACCOUNT %	HYPOTHETICAL ACCOUNT		
OWNER #1	63	\$ 280,000.00	\$ 25,000.00	8.93%	\$ 8,400.00	\$ 28,600.00	10.21%	\$ 62,000.00	\$ 240,627.75	85.94%	\$ 302,627.75	
OWNER #2	64	\$ 280,000.00	\$ 25,000.00	8.93%	\$ 8,400.00	\$ 28,600.00	10.21%	\$ 62,000.00	\$ 240,168.50	85.77%	\$ 302,168.50	
OWNER #3	56	\$ 280,000.00	\$ 25,000.00	8.93%	\$ 8,400.00	\$ 28,600.00	10.21%	\$ 62,000.00	\$ 193,553.26	69.13%	\$ 255,553.26	
OWNER #4	54	\$ 280,000.00	\$ 25,000.00	8.93%	\$ 8,400.00	\$ 28,600.00	10.21%	\$ 62,000.00	\$ 178,409.00	63.72%	\$ 240,409.00	
OWNER #5	53	\$ 280,000.00	\$ 25,000.00	8.93%	\$ 8,400.00	\$ 28,600.00	10.21%	\$ 62,000.00	\$ 163,740.50	58.48%	\$ 225,740.50	
OWNER #6	61	\$ 280,000.00	\$ 25,000.00	8.93%	\$ 8,400.00	\$ 28,600.00	10.21%	\$ 62,000.00	\$ 228,780.75	81.71%	\$ 290,780.75	
SPOUSE OF #3	55	\$ 181,246.09	\$ 25,000.00	13.79%	\$ 5,437.38	\$ 31,562.62	17.41%	\$ 62,000.00	EXCLUDED	0.00%	\$ 62,000.00	
TOTAL FOR GROUP 1		\$ 1,861,246.09	\$ 175,000.00		\$ 55,837.38	\$ 203,162.62		\$ 434,000.00	\$ 1,245,279.76		\$ 1,679,279.76	94%
NON OWNER HCE #2	55	\$ 280,000.00	\$ 25,000.00	8.93%	\$ 8,400.00	\$ 5,600.00	2.00%	\$ 39,000.00	EXCLUDED	0.00%	\$ 39,000.00	
NON OWNER HCE #3	44	\$ 280,000.00	\$ 18,500.00	6.61%	\$ 8,400.00	\$ 5,600.00	2.00%	\$ 32,500.00	EXCLUDED	0.00%	\$ 32,500.00	
TOTAL FOR GROUP 2		\$ 560,000.00	\$ 43,500.00		\$ 16,800.00	\$ 11,200.00		\$ 71,500.00	\$ -		\$ 71,500.00	2%
EMPLOYEE #1	40	\$ 39,884.33	\$ -	0.00%	\$ 1,196.53	\$ 2,592.48	6.50%	\$ 3,789.01	OFFSET	0.00%	\$ 3,789.01	
EMPLOYEE #2	57	\$ 32,536.60	\$ -	0.00%	\$ 976.10	\$ 2,114.88	6.50%	\$ 3,090.98	OFFSET	0.00%	\$ 3,090.98	
EMPLOYEE #3	30	\$ 19,793.41	\$ -	0.00%	\$ 593.80	\$ 1,286.57	6.50%	\$ 1,880.37	OFFSET	0.00%	\$ 1,880.37	
EMPLOYEE #4	36	\$ 52,333.06	\$ -	0.00%	\$ 1,569.99	\$ 3,401.65	6.50%	\$ 4,971.64	OFFSET	0.00%	\$ 4,971.64	
EMPLOYEE #5	59	\$ 15,683.23	\$ -	0.00%	\$ 470.50	\$ 1,019.41	6.50%	\$ 1,489.91	OFFSET	0.00%	\$ 1,489.91	
EMPLOYEE #6	42	\$ 26,180.20	\$ -	0.00%	\$ 785.41	\$ 1,701.71	6.50%	\$ 2,487.12	OFFSET	0.00%	\$ 2,487.12	
EMPLOYEE #7	36	\$ 22,373.09	\$ -	0.00%	\$ 671.19	\$ 1,454.25	6.50%	\$ 2,125.44	OFFSET	0.00%	\$ 2,125.44	
EMPLOYEE #8	32	\$ 23,005.29	\$ -	0.00%	\$ 690.16	\$ 1,495.34	6.50%	\$ 2,185.50	OFFSET	0.00%	\$ 2,185.50	
EMPLOYEE #9	36	\$ 52,964.43	\$ -	0.00%	\$ 1,588.93	\$ 3,442.69	6.50%	\$ 5,031.62	OFFSET	0.00%	\$ 5,031.62	
EMPLOYEE #10	25	\$ 21,291.67	\$ -	0.00%	\$ 638.75	\$ 1,383.96	6.50%	\$ 2,022.71	OFFSET	0.00%	\$ 2,022.71	
EMPLOYEE #11	25	\$ 22,319.75	\$ -	0.00%	\$ 669.53	\$ 1,450.65	6.50%	\$ 2,120.18	OFFSET	0.00%	\$ 2,120.18	
EMPLOYEE #12	25	\$ 22,023.90	\$ -	0.00%	\$ 660.72	\$ 1,431.55	6.50%	\$ 2,092.27	OFFSET	0.00%	\$ 2,092.27	
EMPLOYEE #13	32	\$ 19,754.02	\$ -	0.00%	\$ 592.62	\$ 1,284.01	6.50%	\$ 1,876.63	OFFSET	0.00%	\$ 1,876.63	
EMPLOYEE #14	22	\$ 19,769.59	\$ -	0.00%	\$ 593.09	\$ 1,285.02	6.50%	\$ 1,878.11	OFFSET	0.00%	\$ 1,878.11	
EMPLOYEE #15	39	\$ 25,059.04	\$ -	0.00%	\$ 751.77	\$ 1,628.84	6.50%	\$ 2,380.61	OFFSET	0.00%	\$ 2,380.61	
EMPLOYEE #16	34	\$ 19,085.39	\$ -	0.00%	\$ 572.56	\$ 1,240.55	6.50%	\$ 1,813.11	OFFSET	0.00%	\$ 1,813.11	
EMPLOYEE #17	30	\$ 18,770.62	\$ -	0.00%	\$ 563.12	\$ 1,220.09	6.50%	\$ 1,783.21	OFFSET	0.00%	\$ 1,783.21	
EMPLOYEE #18	40	\$ 42,188.07	\$ -	0.00%	\$ 1,265.64	\$ 2,742.22	6.50%	\$ 4,007.86	OFFSET	0.00%	\$ 4,007.86	
EMPLOYEE #19	45	\$ 34,385.33	\$ -	0.00%	\$ 1,031.56	\$ 2,235.05	6.50%	\$ 3,266.61	OFFSET	0.00%	\$ 3,266.61	
EMPLOYEE #20	47	\$ 13,171.00	\$ -	0.00%	\$ 395.13	\$ 856.12	6.50%	\$ 1,251.25	OFFSET	0.00%	\$ 1,251.25	
EMPLOYEE #21	39	\$ 32,407.39	\$ -	0.00%	\$ 972.22	\$ 2,106.48	6.50%	\$ 3,078.70	OFFSET	0.00%	\$ 3,078.70	
EMPLOYEE #22	55	\$ 99,273.73	\$ -	0.00%	\$ 2,978.21	\$ 6,452.79	6.50%	\$ 9,431.00	OFFSET	0.00%	\$ 9,431.00	
EMPLOYEE #23	31	\$ 21,168.79	\$ -	0.00%	\$ 635.06	\$ 1,375.97	6.50%	\$ 2,011.03	OFFSET	0.00%	\$ 2,011.03	
EMPLOYEE #24	49	\$ 32,813.06	\$ -	0.00%	\$ 984.39	\$ 2,132.85	6.50%	\$ 3,117.24	OFFSET	0.00%	\$ 3,117.24	
EMPLOYEE #25	56	\$ 14,274.09	\$ -	0.00%	\$ 428.22	\$ 927.82	6.50%	\$ 1,356.04	OFFSET	0.00%	\$ 1,356.04	
EMPLOYEE #26	44	\$ 50,301.66	\$ -	0.00%	\$ 1,509.05	\$ 3,269.61	6.50%	\$ 4,778.66	OFFSET	0.00%	\$ 4,778.66	
EMPLOYEE #27	54	\$ 30,130.64	\$ -	0.00%	\$ 903.92	\$ 1,958.49	6.50%	\$ 2,862.41	OFFSET	0.00%	\$ 2,862.41	
TOTAL FOR GROUP 3		\$ 822,941.38	\$ -		\$ 24,688.17	\$ 53,491.05		\$ 78,179.22	\$ -		\$ 78,179.22	4%
GRAND TOTAL		\$ 3,244,187.47	\$ 218,500.00		\$ 97,325.55	\$ 267,853.67		\$ 583,679.22	\$ 1,245,279.76		\$ 1,828,958.98	100%

This illustration is contingent upon several factors. Some of the factors are the demographic, financial and business ownership information provided to us. Should any of these factors change in any year, a plan adopted based on this illustration may require modification to an appropriate plan design. The actual contributions for the year illustrated can not be determined until actual compensation for the year is known.

41/4916
41/4917
3/25/2019

401(a)(26) - Test

Cash Balance % for the offset is 2.0% for the NHCEs (40/4744)

Plan Deposit on 12/31/2019

Contribution to the Cash Balance Plan \$ 1,245,279.76

(For lower contribution totals please contact your Marketing Representative)

*NHCEs may defer up to \$19,000.
Prepared by the Loren D. Stark Company
10750 Rockley Road
281-498-5777
www.starkpensions.com



Exhibit F

LDSO Proprietary 2019

**NON PBGC COVERAGE
COMPANION PLANS
FOR THE PLAN YEAR ENDING DECEMBER 31, 2019
CASH BALANCE PLAN**

PARTICIPANT NAME	Age	SALARY	Defined Contribution				Cash Balance				% OF TOTAL EMPLOYER CONTRIBUTION	
			401(K) DEFERRAL *	401(K) DEFERRAL %	SAFE HARBOR 3% CONTRIBUTION	EMPLOYER DISCRETIONARY	EMPLOYER DISCRETIONARY %	DEFINED CONTRIBUTION TOTAL	HYPOTHETICAL ACCOUNT	HYPOTHETICAL ACCOUNT %		DC & DB TOTAL CONTRIBUTION
OWNER	67	\$ 275,000.00	\$ 25,000.00	9.09%	\$ 8,250.00	\$ 4,306.57	1.57%	\$ 37,556.57	\$ 235,438.50	85.61%	\$ 272,995.07	
SPOUSE	50	\$ 205,000.00	\$ 25,000.00	12.20%	\$ 6,150.00	\$ 3,210.36	1.57%	\$ 34,360.36	\$ 86,362.40	42.13%	\$ 120,722.76	
DAUGHTER	20	\$ 8,000.00	\$ 7,760.00	97.00%	\$ 240.00	EXCLUDED	3.00%	\$ 8,000.00	EXCLUDED	0.00%	\$ 8,000.00	
DAUGHTER	20	\$ 6,000.00	\$ 5,820.00	97.00%	\$ 180.00	EXCLUDED	3.00%	\$ 6,000.00	EXCLUDED	0.00%	\$ 6,000.00	
SON	24	\$ 25,558.53	\$ 19,000.00	74.34%	\$ 766.76	EXCLUDED	3.00%	\$ 19,766.76	EXCLUDED	0.00%	\$ 19,766.76	
TOTAL FOR GROUP 1		\$ 519,558.53	\$ 82,580.00		\$ 15,586.76	\$ 7,516.93		\$ 105,683.69	\$ 321,800.90		\$ 427,484.59	88%
EMPLOYEE #1	41	\$ 60,850.36	\$ -	0.00%	\$ 1,825.51	\$ 2,738.27	4.50%	\$ 4,563.78	\$ 2,160.19	3.55%	\$ 6,723.97	
EMPLOYEE #2	53	\$ 34,338.99	\$ -	0.00%	\$ 1,030.17	\$ 1,545.25	4.50%	\$ 2,575.42	\$ 1,219.03	3.55%	\$ 3,794.45	
EMPLOYEE #3	27	\$ 31,709.64	\$ -	0.00%	\$ 951.29	\$ 1,426.93	4.50%	\$ 2,378.22	\$ 1,125.69	3.55%	\$ 3,503.91	
EMPLOYEE #4	44	\$ 44,819.43	\$ -	0.00%	\$ 1,344.58	\$ 2,016.87	4.50%	\$ 3,361.45	\$ 1,591.09	3.55%	\$ 4,952.54	
EMPLOYEE #5	43	\$ 37,084.22	\$ -	0.00%	\$ 1,112.53	\$ 1,668.79	4.50%	\$ 2,781.32	\$ 1,316.49	3.55%	\$ 4,097.81	
EMPLOYEE #6	38	\$ 33,106.36	\$ -	0.00%	\$ 993.19	\$ 1,489.79	4.50%	\$ 2,482.98	\$ 1,175.28	3.55%	\$ 3,658.26	
EMPLOYEE #7	30	\$ 40,759.11	\$ -	0.00%	\$ 1,222.77	\$ 1,834.16	4.50%	\$ 3,056.93	\$ 1,446.95	3.55%	\$ 4,503.88	
EMPLOYEE #8	32	\$ 34,678.40	\$ -	0.00%	\$ 1,040.35	\$ 1,560.53	4.50%	\$ 2,600.88	\$ 1,231.08	3.55%	\$ 3,831.96	
EMPLOYEE #9	54	\$ 39,599.77	\$ -	0.00%	\$ 1,187.99	\$ 1,781.99	4.50%	\$ 2,969.98	\$ 1,405.79	3.55%	\$ 4,375.77	
EMPLOYEE #10	68	\$ 42,188.32	\$ -	0.00%	\$ 1,265.65	\$ 1,898.47	4.50%	\$ 3,164.12	\$ 1,497.69	3.55%	\$ 4,661.81	
EMPLOYEE #11	53	\$ 41,761.04	\$ -	0.00%	\$ 1,252.83	\$ 1,879.25	4.50%	\$ 3,132.08	\$ 1,482.52	3.55%	\$ 4,614.60	
EMPLOYEE #12	34	\$ 41,212.94	\$ -	0.00%	\$ 1,236.39	\$ 1,854.58	4.50%	\$ 3,090.97	\$ 1,463.06	3.55%	\$ 4,554.03	
EMPLOYEE #13	47	\$ 35,160.56	\$ -	0.00%	\$ 1,054.82	\$ 1,582.23	4.50%	\$ 2,637.05	\$ 1,248.20	3.55%	\$ 3,885.25	
EMPLOYEE #14	19	\$ 20,719.22	\$ -	0.00%	\$ 621.58	\$ 932.36	4.50%	\$ 1,553.94	\$ 735.53	3.55%	\$ 2,289.47	
TOTAL FOR GROUP 2		\$ 537,988.36	\$ -		\$ 16,139.65	\$ 24,209.47		\$ 40,349.12	\$ 19,098.59		\$ 59,447.71	12%
GRAND TOTAL		\$ 1,057,546.89	\$ 82,580.00		\$ 31,726.41	\$ 31,726.40		\$ 146,032.81	\$ 340,899.49		\$ 486,932.30	100%

This illustration is contingent upon several factors. Some of the factors are the demographic, financial and business ownership information provided to us. Should any of these factors change in any year, a plan adopted based on this illustration may require modification to an appropriate plan design. The actual contributions for the year illustrated can not be determined until actual compensation for the year is known.

\$ 1,057,546.89	DC	41/6368
6%	CB	41/6369
\$ 63,452.81		3/25/2019
\$ 31,726.41		
\$ 31,726.40		
\$ 0.00		

Plan Deposit on 12/31/2019
Contribution to the Cash Balance Plan \$ 340,899.49